Supplementary Material

# Supplementary Data

**Supplementary Sequence file 1 Core proteome of *U. urealyticum***

>UUR10\_RS02285 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 heat-inducible transcriptional repressor HrcA

MKNNKILQEQIIEPKLSDRQKKVLKSIIDEYTITATPVSSKLLVQKEFQDQSSATIRNEMMLLEKFGFIEKQHISGGRVPSLKGYDFYNKNLINKNNDVSDNFKMRLHKILSKRYSNIDEILNAAVSIINETTQLPAVVTKSSSEELLKRIDLVKINDNSALVLIVTSSENILTHSIKLDKNTNFNDLQTCFSVLDERLVDTKLSLISSKLDLIVDIVRAKIEEAEYYFSKIVHRVFDFYAHKPTVNSKTYGVKYLTKHSEFEDQQKLNDLLNLLEDSTI\*QQIALNKKTDGLAKIMLGNEIGHEHLAIATAQINLPNTNRQITVVGPTRMDYAKIKALLDFLKIEVEKILGSSNEH\*

>UUR10\_RS03090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L1

MAKISKKLSAAYEGIDKQKAYPLFDAIKLAQEKSITKFDGSINIAVKLNLDTTKVEQQLRGSISLPNGNGKNVRVLVLSEDITKEQAAAVGADYFGGADYIQNIEKMLNQIDVIITNQKMMPLLAKLGKVLGPRGLMPNPKIGTVTNDVLKAVEEFKKGRIEYRTDTYGNIHMSIGRVSFETAKIEENANALLSLIRSKKPATVKGQYIQNIAISPTMGPGIKVIINNN\*

>UUR10\_RS00315 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SsrA-binding protein SmpB

MIVSNKHARRNYELLEFFECGIVLKGTEVKSISRANCSINEAYVQIVKNEALILNMHVASFFEGNNFNQDPYRNRKLLLHKKEIIKLQHLVQTQRMTIVPTKIY\*KNNKLKVEIALAKGKQLHDKREDLKKRDLARESRLF\*

>UUR10\_RS00735 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase subunit C

MSSFIDITNVISSHVEANLPAVSAENVQSLANGAGIAYLGKYIGTGITMLAAGAVGLMQGFSTANAVQAVARNPEAQPKILSTMIVGLALAEAVAIYALIVSILIIFVA\*

>UUR10\_RS00930 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphate uptake regulator PhoU

MATNYFLMKESQCDLLNDFKNFFQMVIDNQKLICDLLKNDQSSYKETYEKACFLEKKVNTTYADMLEEIM\*IIQRDQPRASYLRFFIAGINSIKDLERISDHSEIICEYFLETEFDEEQKNIFLTSFEISNQILSDLYDFFDKNEFSVNTIEHIKDLRSKSIMKINKNLIQSLHDQSKLLDENSNYIKLILMYRHIERNIEHGINIVQNFGNVHITSR\*

>UUR10\_RS01780 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKMKAKKFLITGLLGVVSLATITTVATACTNGNNQKANTVNNKSDLKTNPNINLTQQDVENLEKQRQQ\*SEDLDVYFNGGLSKSGKNFDRINTLSSNATE\*FKNHQKLAATRDSGSLVQDDAAYSFGIAPDYVHYK\*VSKDGGDVSPSYLKPY\*NKNLTEGRNFSKLDPKTLDDNGIGVLLISDHHYGK\*NDNFLSKKTVGGLIMQSRVSGLPSHYPAVLTPKFLFDPNLNPNLKKYASANYALPNYYSDPLDGIILTGKTLDRIYDAKKFSNVYNAHVAGKTHFETFTDFAKAMVDETRRGISQ\*SLKNDK\*KDKTVLMVMPNFTPTAKMVDVNFKPEDLEFLSNVCINEPMYCPTIYSDPNDKYLPGLGAKFPIPVNHISQVQNYIDDYGQIGGKVLNGTGNPEASKQVGPTLGDAFKGTSDVVVFCYNEYGLLNYKPGTEEGEALVQQFEKNLTNYVNGLDINTKNNFNPTKMLKEKPVVGKNFFIIRKSSFYDAFLGFLGTIHNFNTFNK\*MNGENARPIELNIPKFNKDNVQHIRAFKDDFKNK\*

>UUR10\_RS00345 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 oligoendopeptidase F

MENKKYE\*DLDDLLNNKSLDDLYAEFEAKKAERIKAFATFLDSKENFAQ\*QVLEEEFTIIANRFYNYVSNNLNTNVVDPK\*NS\*SQKLSASFYELETALSNYDSVILANEAKIKEYLKDPQLSVYTRKYDEIFRYQPHTLNDEQSKLYSKLARADEGFSTIYSTYTNNDMKFADAIDSKGKKHPINNEAEAFVHLKAKDRALRKSAYLSMYKAYYDSRESITKMLYYNYLSLNQQAKAKNFEDYIAKAAFDDVVDKSLITLIYDQVKLYKEANEDYKKARNAYLKKLIKVSKIEP\*DNALPLISKKIDISIEEAKQMSIDSLSILGDEYVSNIKRAFDEK\*VS\*LPQKGKRGGAYSIGGTKGISKYYILMNYTNSLRDVQTIVHELGHSMHSLYSNRTQKIYSDYKIFYAEIASISNEVYLNYYLLEKYKDDLEMKLMILDEMISGFFATTTRQVIFSNFE\*IANELINSGAPFTADVVMKEYQKLEFEYTNKPIVEDLTSIYSLSSVTPLRIPHFYVGNFYVYKYAVGQVAAIISGHRVFTKVEGAKQKVFDFLSSGGSKDPLDTIKLLGVDLTQPQS\*QEALEIVKL\*IKDYKQTIVLLNKKKSKK\*

>UUR10\_RS01165 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 type Z 30S ribosomal protein S14

MAKKSLIAKQKKHQKFAVREYTRCVRCGRPHAVNRKFGVCRLCFRDLAYAGAIPGIKKAS\*\*

>UUR10\_RS03080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding cassette domain-containing protein

MQKLMDTFFKKKLKVPRPISDDISVRVKNLYAIYDEKQENELVALNNISYDFKKNKIYFIIGNSGSGKSTLVTHFNGLIISRYGFVQVGDIVSGDHYDLEHQLLGVIDSYDKKIINLL\*KNQLDQ\*TFLVLYSNEVNVQQARILFEANFKQKPVSLKFIKTKNNHELITNPYVRENTKIAVVRVDKNVFLEINDKMDYDELQRFEFIKKEIKTNYHLSKKLKRFKELRRRVGFVFQFPEYQLFKDTIEKDIMFGPINLGVKKSEAKKRAKFYLNKLGLGDDYLERSPFGLSGGQKRRVAIAGILAIENDILVFDEPTAGLDPAGEHEMMQIILDAKANNKTIFVITHTMEHVLEVADEVVVMDEGEIIKTGTPYEIFFDEHIINSTSIQVPRVIAVINELIKKDSKYEVLKQKQPRTIEELADAIVEFKKGGK\*

>UUR10\_RS01225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S11

MAKKKKLSFTNGIAYIHATKNNTIITLADEQGSVLS\*ASSGSIGYKGTKKKTPYSAGIAAEAAAKAVIDMGLKSVEVHVNGTGASRDTAIRSLQAAGLEVTKIKDVTPIPHNGCRPPKKPR\*

>UUR10\_RS01335 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MGSNKTKKNRSTIQFLFGTIKKRKIANYLIIAFAFLTFALAIIGSFDAIASKYAIGIGSGLSLFITIGFSI\*RVLMIHLGKE\*NKSEIIWQSVMGAILVLSIIF\*I\*ATATTSVQYSALKEYFQLLKQKDQRASFIVLTQATTDQFGTALKGGL\*A\*VVTSCVYIFTNTFHNMFMKEKSPK\*

>UUR10\_RS01385 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 histidine--tRNA ligase

MSNYTKPRGTVDLYNEAMNEFKSLENFLLTTTKKYGFQQIKTPIFEFAELFMKSAGESSDLVSKEMYLFKDKSDR\*LALRPEGTAGVIRAVVENKLLLNNPLPLKLMYFEPCFRYERPQAGRQRQFHQFGVEVLGTKNIYYDFELIALANNILKKLAISDYVLEINYISTAHNRSL\*VKSLQEYFNLYRDELTPLSQERITTNPLRILDDKLESQKLVVQQAPKITNFLSNEEKEEFALIKKMLDEHDIKYRVNEGLVRGLDYYSGLVFEFISTSPRLLGQSTIIGGGRYGQLIKQTGGPDYEGIGFGIGIERLLIALLDSNKQILNNFEDKYLIAYFDKELENEAIKLTQSLRINNQLNVDIILDTIKADKIFRLAQRLNAKKLIILAKKE\*LNKQVILKDLLSFEQKTLNLDEIKKIKE\*

>UUR10\_RS01565 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 inorganic diphosphatase

MKLNVTIEIPKNSNIKYEYDRATKEITVDRILYGSMVYPHNYGFLKEALDYDGDELDVLVFADQAFQPGIKVPARILGAMKMIDGGETDTKLLAVIDVDPRYKHINTFKDIPLH\*LAEVQDFFENYKNLQNKKVEILGFEDEV\*AQKEYEECVALMQEHGHLKKDEFVSKMMKQRPEKYSQ\*

>UUR10\_RS03010 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 5-nucleotidase, lipoprotein e(P4) family

MKLLKSKKF\*AISLSSILVGASVVAAATACTNSSIESRVSTTFAKTQSGIYAIYEITN\*SKLDANEKKSLESLKFTASVIDKDGKAEFTASTGILKKDKVYVKLPREPKADDRVVVKPDNANLKIGAVYVTTLNVSSVELNDGSKIDNNTNQKDESKPYNSVESIIYNQR\*LANV\*NTLSAEKDGMLLTAYNSAKHQFDAMVKQDAFDTNKVKVEKDASGNITKVTVSNPDSGKAIPVVFMDIDETILNNYANQNYQLLNNKAYSPRD\*DLFVADKASKRLAGAFEFIKYV\*EHGGVVMFNSNREQSSHIEPTVENLVSEGLDRALLPK\*VF\*MQGIDFASDKP\*DNVKKDAKGKRVKSTKEDRMNTMNERTQGYDLSAFGSGNAVVLKTVMRVGDNFDDFNDNASKGKTNAERVALLKEYGKLFGNFDTKNTKGIKYKKDATSGKIVKSDET\*SESYVMIGGNSSYGGFESGIAKGYFGLSKEDQVKALREYVKQLY\*EPKNQNK\*

>UUR10\_RS00255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MMNTKTFTSVNRVIYDDNYSLKQQQKSSFINQFLKGLLSAITLLFFILLLIFAENTLFGLGFGDENKSMMISKSLNAFFDLHSPKYLQLNFLIVFRFFILSFTLFYALIKNFTNLYWHRVTIKKYLP\*FVLYLVIATISFLLFFTFFSV\*PKEVFNLVFLLLVLFLLNLSYEIFNYFISK

KTNPLLYGNYKNLIITMVFQALLLLFVIITPFV\*INTGKSPNFLFVDNRFYTRIVDIFTVQSGKNFIILIAFFFFLITFIVLANTNFFALVINKRYDRNYVKNNL\*FILLLFSAIFI\*LLRVFAYKHENENLPIGNNHLL\*VYILQSFFAIIILILYMVFTLKKRLSAKSSLNTLLNLVVTQTILSLSLFLVTLFNSKSVVSLINVFITITVQMSVFGFYIFQNKNISTKLLVLLKVIMILIILTAAIVGFDYLLTSDHHNNYLFSNIQPKMNLVQIMLLLNFSLSFTLISYLTIKFTMVIFKINKLNKELNNEKK\*

>UUR10\_RS00995 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosomal-processing cysteine protease Prp

MIKINHYPNALLVKGHANFDEHGKDIVCAGVSAIIMGALN\*FDQQKTTIKVEQGFILIIIDDNNQLYRQYLELIIIQLKAIYFKYQSYIELHEYKQQYKRGL\*

>UUR10\_RS01080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-3

MNTPNNQRHMSSNNDARKNQPLINDQIRFRTMVVIDDHGNNLGEMNRIDALNLATSKNLDLVVIAKKGNIPVTKILDYGKYKYEQKRRQKESRKNQTIIKVKEIKIKPMIGEHDLKVRAENAKR\*LEDKDNVKFVIEARGRMCTKDEFILQAYEKFIDLIKDYGTVVQANKKVSNYRYETIIEPIKK\*

>UUR10\_RS02990 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor Tu

MAKAKFERTKPHVNIGTIGHVDHGKTTLTAAISTVLAKKGQAIAQSYADVDKTPEERERGITINASHVEYETKTRHYAHVDCPGHADYVKNMITGAAQMDGAILVIAASDGVMAQTKEHILLARQVGVPKIVVFLNKCDFMTDPDMQDLVEMEVRELLTKYGFDGDNTPVIRGSGLKALEGDPV\*EAKIDELMDAVDS\*IPLPERSTDKPFLLAIEDVFTISGRGTVVTGRVERGTLKVNDEVEIVGLKDTQKTVVTGIEMFRKSLDQAEAGDNAGILLRGIKKEDVERGQVLVKPGSIKPHRTFTAKVYILKKEEGGRHTPIVSGYRPQFYFRTTDVTGAISLPAGVDLVMPGDDVEMTVELIAPVAIEDGSKFSIREGGKTVGHGSVIKTSN\*

>UUR10\_RS00150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNLKAKRFLKVITIISPIIIIPTIIASCAQTNSSTPNNPVKTPKSSVEVVNINPYKTKQMLASNINKEQINAYFIFVFNLIKEDQKIEEKILEKNDYEIIN\*AGNDNDGTLSINVLIKATKQSYLISTQAVFLTNKQNSYLQELKYKTPAVYSIDDILKLSNDPYNLIYNNPYYQEQLLR

AKVYFNQNEANIADSKLYMNKIGYSEFGDDVQKRLENAFKVRYDEQNIYQINSPQILVKETKTVTSYTDEQTNNSYSINVELIKKLIQINPFGKLPTNFAQLVNLIKKEEYPKFLTITKNEPINNVVVKDIYYRIIDRYAKLEFILEIYNQKTKQTVYLSANFNQKNSQLLKNEDYFQYIFDRTISLNLLTTKDGKNVELNSGTG\*IVDRIVDDSLPKNKIKLLVATNNHVMS\*SNLAISKDNKTKSR\*FSKQEYANYLENNAGLISSNIYEDKDRYQCLL\*GTAPLKSPVSNKYNSLSGISFSNLAKVYNITSQNFVNRA\*YLPQLSANGIKINEELKT\*YQVNQESIKSIKNGTLDFALVPMVFDIEDIKEKLPNYYKVLNTKDEAN\*YIGLGNSKKYLPQLQLFSGGYPGDRNFNSSAIVS\*RGSKSYGSLIQAFDREIENESILDYYGPKRINNIDAYQKVDEGYLNKLFNVGTRVITSDEIGDLGSGSSGSMIIDSNFNLVGIHFASLNSRAYGAPNDSMIGNLFVAQSQDLSGDIDVRAAVIKKLKAENIYTYKLNPKVSS\*

>UUR10\_RS00375 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MHKKTKIYLLGTFGLLSFGISVATIASSCTKTSSTNIQEQIKYDIMPTYTSQADNLLALGITPDYYPQQMY\*KKKAPYDYLNPQKSDYQK\*FYEKDNFANQFKEKLTSLEKDIKQYGTT\*\*SFSGNTYGEGVSEEY\*NKNKGKLVYYDRYLIDNSHFERAKKSLVAHDGPISNPNTIIPVDFKMSRDFYLTLNKDDILNFKNKPNSLLRKSLLLGLEYKDKEKGELNELYNYSYIANKLQEDYFNGQTFDGINFNNSAFKKRVLEGNDIPIFYTEKN\*NNPKSLNSKIYEALKTVVLTKKVRESGLNHLNYNPFSPTIKQDDYITSILQHHPIYEQNMR\*DGGTQVYLGTMRDSLLYLYDIAYATTKYAYSEQAQIDFKDNLAKLEPLKKALFNANQIAKNLIERLNKIRAYFQAVGVVDKNYNPDLKQFDNTNSKTLGLLTTSQNSGSSTLQTQSKYGFLYYDLGFKAPKPILKKDE\*TELLEDVNGKQLLCHRHGNGQIHCFGGGDSQDGVQVDKNIVGSLFNMDDNG\*\*\*NLGEGSLSASNFAKFNSQFDYLIKISYQNLEDFHSNNLTRPQKELIMSLIKPNYEDPANRVFDDNYEL\*NDGIKSPIGYNMILDSIIRIINKTIDPQVIKQNEHLLREANN\*GSY\*DTFVNSK\*

>UUR10\_RS00910 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 methionine--tRNA ligase

MLKQKKFFISTPIYYSSGNPHIGHAYTTIIADVLARYKRLFGYDVFFLTGMDEHGQKIQQKAFEENISPKALVDRNSIIFLNL\*KRLHISFSKFIRTTQMDHEESVQKVFSYLYKQGKIYLGQWTGYYCVSCEENYNPAEIIKSQDNIMLCRMGHKLETKSEESYFYKMSDQAPFLKTYYQNHPNFIIPNERANEMVNNFLNNLEDLSISRTTFD\*GIPIAENPKHVIYV\*LDALMNYLTATGYLSNNEELFQKY\*CDNETEIVHLLSKEIARFHCIY\*PIFLNDLQIRFPSTILSHG\*IITKEGKMSKSLGNVIDPNVLIDTYGVDALRYYLMADLSLFRDAIFSEDNLIETYNTQLANSYGNMISRTLGMLKKYRNNIVPKYVGCVLKNDEKLENLINKNIELVQENINKYSIDKALNCIQEILVEANKYVEDNKP\*ELAKNQQKQELDSLLVHLVKVIQVTTTLLSPILIEGSKKAVEQLNFDESFLTLASLASYDIFNYHKVNDSKPIFARIIVEKQ\*

>UUR10\_RS01340 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate phosphoribosyltransferase

MGPVIPNTRLIDFKFDRDLLNKAYTSHYFIKTCKIIELHAPSHSVIMQFTHFSKTPIMVCGTSEVLALLEFCLSRKELKQLKIYYVPDGHVIKPKEALFAIEGPYEIFG\*LENIIDSILARRSSVATNCYNVLNVINDEQKVIYMSDRSDDYSLQPYDGYAAAVGGMQYFVTQKQVEFLKDINYECKVMGSMPHALIQQNNGRVDLACEMFAQTFPNDPLIAVIDYNNNVLNDLEQLRYMFDRLYAVRIDTAKDLIDNSLLSTFDNVRNHDLHGCNPYLIDLVREYLDNNGGEHIKIIASSAIDLNSIKNFNKHNSAIDFYGIGTYLTHLSIHITADLVCLDNVYGAKVGRKIAKNFAEMTLY\*

>UUR10\_RS01390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aspartate--tRNA ligase

MRVYCGRIGKEHLEKNVILNG\*VKKVRKMGNLVFVDLKDRFGIVQIFATKQDEVFDELTQLSREDVINVEGLVLLRKSPNHELKTGEFEVHAQKLLIYSKAKTPPLIIEDETDANEEIRFKYRYLDLRRDVNLRTFELRSKVYQTFRNYLHSEEFIETETPILAKPTPEGARDFYVPTRTKKFYALPQSPQTFKQLLMVAGFQKYFQIAKCFRDEDLRSDRQPEFTQVDIELSFADELEIQTLIENLFKHVFKQTINVDLTTPFVRMSYEQAINDYGSDKPDLRFDLKLKTLDTYFKTSKSQIFQKALSNNQSIRAILVPNVNLNKKQIQSLEKFAKDKGAKGLA\*ISIENEKVIDGSLSSIKEDHVIYQTIFKDYHLSTGTILLIADEFDIASQSLGLVRVNLASMLNLKKPNDFKFV\*IID\*PLYEYDDENQRFVAAHHPFTMPTLETLDTFDIDQKNAKGRSYDIVLNGYEVGGGSVRIINQQIQRRMFKSINMSDEEANLKFGFLLNAFEYGVPPHCGIALGLDRLIMILINSEYIRDVVAFPKNNNGVDMMLDAPASMNDEDLKELGLIIKND\*

>UUR10\_RS02160 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKFKRFDSKKSILRFLHVDEAKREINLSFNDTTDFIFFLKEIAEDPNIAKKNAKKMTNLYVEISDKLGNDDNTDLSAYETKCNNLIEACVIDEAIFLIYMAKNMIIFLAHNKLDILQKDFFDKLLLIESHFSFDQNLSYSYIKNSSIALLIFHLKQFVAVYDEFLNDFEKVINDVLENAIPTKTKLNQQINHLHTLKRRPS\*

>UUR10\_RS00010 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L31

MKDIHPVSKPCVYNCVTCKKEFVINSAAKNTEVAIEVCSNCHTFFIGKQNATTTLRGRAEKLNNRFEAGLNNINKKPEKKKVQGKSEPRKSLNEL\*

>UUR10\_RS00950 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S15

MAVSKQQKHDLTVKFGGSASNTGKTEVQVAILSAEIDSLTTHMIENKKDKASKRGLYKKVAQRKKLLSYLQRVDIERYRALIKELNLRG\*

>UUR10\_RS01095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S10

MNQELRIRLESYDHRLLDDTVKTIVDISNSTGSKLRGPIPLPTKKEIFTILRSPHVNKSSREQFERRTHKRLIILENPQPKTMEALKRLSVPFGVEVTFKI\*

>UUR10\_RS03130 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKKNKSKKLIFSLLGISFIGLVPIIAASCSAAAHPQVNVHYVSANVKTNNIGKVKIRAFEGKDQKHEMVFENENLLDDVYYEAGDLTYTSIKDNKRFDKNNKEIDQLGYLIPKKEV\*TKAPSNSNKLTPINLSILQNELIRLIGNKLSFDPTSKYANNLEVVDEASKQTVFNQKVYTQGELTKINKTVELINSLVISDGLYTYITSMTDQLMK\*LGEHAFNNHSNKDFELFKGLKNEVAKEFLLALVQGVGAGQHTYKLALYNFSFD\*EYVDAITGLSITKPSFGTKVSDELLVNPSSKNVFVRLKNIKLQYA\*YNSSNKTAGSFMEASSNGSQVNALSSINAALSGVDKQIYAKIHEDKKPEIRNLVYDISLKDIVVNFAPSTMRSANVNENATKLLQENFAKIKNQKTELTETEKKQTTVYNEYYTGTLSKIHAFSVLGKDLKEDLKNEAKANEKEYVEDKKIED\*QYYEHDRGLNGVYPYAFLAENNALELKVDDFIKARKFVEAIKASNTSRTILPITDPKNNQVLSKQAYSQLAMIALENKDANIHDLSSFESAKNNLKKYLFDLNDIKSVNVNYSK\*NEKNL\*

>UUR10\_RS03355 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 deoxyribose-phosphate aldolase

MNKYSIYVDHTLLKPDASLDEIHNLCEEAEENEFYSVCINPCFIKVAKHYLLETPVKICTVVGFPLGANTTETKVFETRNAIALGADEIDMVININQLKSANREYCLQEINEVKKACSDKVLKVIVETALLDQEQKEFAARIILESDADFIKTSTGFAKEGAKLEDIIL\*KQILGDAKQIKAAGGIKNLDDFKAFIDAGATRIGTSSAIKILNNQ\*

>UUR10\_RS02345 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease subunit beta

MSGSSNQFTPGKLVPGAINFAEGEIVMNEGREAKVISIKNTGDRPIQVGSHFHLFETNSALVFFDEKGNEDKERKVAYGRRFDIPSGTAIRFEPGDKKEVSVIDLVGTREV\*GVNGLVNGKLKK\*

>UUR10\_RS02480 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MIVFFILYGEINLLGFNGIVGANGR\*YGEGFKLDEHQQ\*VVGVKDFYH\*NPIVYDQLKPKPDAFMIEKMQALVTKITNERNHGVEFGTSIISSYPV\*VAMFSTLGLAIIVCSILAFSTPKIR\*DILTPVVSCWFGMFILIVSGFIPSQIWGYLVRFLILVVAFVLPIFIMAKITNAIMNRSKHFETYAADLYNEFKDSEQYYNEFNKKRLELKKRNKANEKTKYKVEDDYEGK\*

>UUR10\_RS01010 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 23S rRNA (adenine(2503)-C(2))-methyltransferase RlmN

MKLNDNSLKQIYSLSLNELKEELLKLNLKPFISKQIYS\*IYQKRIFDFDKFSNISKSNQSILKENFDNNLLTINEYQSNSDGSIKFKLLTTINLIINCMIIKFENGFLIKINPFGINDKKEIINLSTNELVLQTLLVQQFLDQHKLGKITNVIVKGSQDSLLNMEAVSNFINIINDENGLNIGKRKIVV\*TSGVDVDLIK\*GQLQNQIELIISLNASNSQVYKKLMLNKTNQN\*SFIKLIEQIKTYTEMTNNRVVLEYLLIDKINDNLDYANELVELLKNILCYVLLIPYNLNHKTSDNLEEFFNILSINKIRISKRVRKSNDLDISFTQLKIKE\*

>UUR10\_RS01760 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MCISKVDMAKVKKFFKQYLFAKFQCKN\*ELCRELKDYDPKDDQKYLKWEHFVEYVEQVLDALDKTSARIIKEIYIQNKRICELPYSYSTYYAYRKKAIIELLAYLDLKI\*

>UUR10\_RS02350 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease subunit gamma

MNLSLREIQKLLVTVAADVARRRLARGLKLNYSEAVALITDHVVEGARDGKLVADLMQSAREVLRVDQVMEGVDTMVGIIQVEVTFPDGTKLVSVHDPIYK\*

>UUR10\_RS03300 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S9

MQKSNIVEYKGLGRRKSSIARVKLVPGSGKVFINDRQPENYFPNKLVIQDMMQPLVLTKTAETYDVYVKVIGGGFNGQAGAIRLGITRALIQTREDLKTDLRKAGLVTRDSRVKERKKFGLYGARRAPQFTKR\*

>UUR10\_RS01740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 endopeptidase La

MKKPILISRAIVVLPYETTTIEVGRPKSIQAIDLAKQSSSKEIIVISQKNIDTDEVVNFDELYKVGTLVKIKSIVDNFDDGYSIEVEGIKAVYINSDSEVIDAIEYEYEDVITNPILSTKDEVAINEINSEIFNTINKRTKHKDITFENMHALISLEKEKFAYLAAATYINDYDGEIKEKTIKDRINILLQPNLLLVHETILHFLFDQLVDKRVIEEEVEKMIADKINNNLQKQQREFFLREKLKVVKEQLGELSSREEDADKIRAKIEQLELPPNVRERALAELNRFESAMSSNESSVIKSYLD\*LLDLP\*TQQGVDNTDLMSVRTHLDDNHYGIEKVKERILEYLALRMRNPNLKGPIICLVGPPGVGKTSLVTSIAQALNKKFVKVSLGGVRDESEIRGHRKTYVGAMPGRIIKGMKKAGVVNPLFLLDEIDKMTSDQRGDPAAAMLEVLDPEQNKNFSDNYIEEEYDLSKVMFMATANYYQQIPYALIDRLEVIELSSYTAIEKREIAKSHLLKRIFTDAKLNENELIFNDDALDFIINHYTKEAGVRELDRQLGHIVRKYIVETYKNKNNKSKPSVEVDEAVIIKYLGKIKFDFNKKEETTIPGIVNGMAYTAAGGDLLPIEVNHSTNGKGGNITITGNLEKTMNESVSVALGFVKANAEKYGIDTKKVSFKEIDIHVHVPSGGIPKDGPSAGIAITTAIISSLSQRPVRTTLSMTGEIMLRGNVGIIGGVKEKVISAYRAGVREIILPIDDERYLEDVPKYILDDIKIHLVKHYDEVYNIVFGTK\*

>UUR10\_RS01755 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Nif3-like dinuclear metal center hexameric protein

MKKTDIKAQDILDFLTKKYDLSRAES\*DRNGLFFDEQQIINNIQIALDITDDVVNDAILNNANLIISHHPLFTNQDLNDELDYFVNNDLIEKIKKNKISVIHLHTAFDASPYGMSMQMAKRLGLLNIKQDDQNPYLVVGELKLGVSVDYISRIIKQKFLSPIVKYNNIFRLETNLKKIGIIGGSGYKFADDAFVRHELDMLITSDLKYHN\*LDAQAKNQNIIDMNHLSESIFIDVIYDELTKFYGNDENLNKSLSIIKINYI\*

>UUR10\_RS02365 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase IV

MQSSGQKIIMHLDIDAFYATVSELLHPEYKNFPIAVGSLNSRTGIISSPNYLARSYGVKSAMPIFLAKELCPNLIILPCEHDIYQTYSNHFFQIVNKYCNKVEITSIDECFIDATNSIKKYHNNVRLLAAKIQNEVKNKLNLSISVGISFNKTIAKMATELNKPFGISIIDENKITNLIH

ELDISKIPFIGEIKSQELYAINIFKIKELIASNNKQKASLVLGSMYQNLVNDLKGLNEIKTIEDDIYKSISHSKTFNEDLNDFYEISNELNELISNVVNRLKKHNLMTNNISINIKYPNFQTKVKQKRLDYYTDDYQTIFLAIKNLFKKVYKDELVRLIGVSLNKLVPKESVKKQLFLFD

\*

>UUR10\_RS03420 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit delta

MSRQLVDIAYNAIKNNKIYNKKTFSFDNIIDEIVKNSDVNLVEVNSQLGDLYTTLIQDTRFISIGDLE\*NLRERLSLDEITKINNAMYEVGLYKDSDREEDEHEMMKNDKLTQSKEQEESDEESSLSDFVGYDDEEEEFKTNSTSDKDEIEDEEELEEEE\*

>UUR10\_RS01715 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNFDINLINENDYVFSGYIVLKKNNEEVIELLTYLGDDPVSDEAKIITLYNNDHIDLKNLNDGDLIIVKASLITNDNSKQLMLKDINKLELSIN\*

>UUR10\_RS02560 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 5-methylthioadenosine/S-adenosylhomocysteine nucleosidase

MIGLIVALNSEIKTFFKQIKKKVYQINNIDFYLCTHQNIEFVLVFTDVGKTNASFITALLINNFKPKVILNVGSCGALNDQLQVLDIAIIDQCQYLDVNVSAFGYLKNQIPRLDKFFILDKNYNQQIKNQLIKKKLKC\*IANVGSSDTFINRDNILFFYDQQIDLVDMELAAIAHVCTRMLTPLVSIKLVSDHITLPNSNQEQFNKNLSLIDK\*FNEHLTSIIEAILEIY\*

>UUR10\_RS00500 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 signal recognition particle protein

MFKAMIGNIVSKQMSKKLKNATIAEEDIKELLSEIRITLLDADVNLLVVKKFIKNIKEKTIGLYVEQNQKPADVVLKVIKDELVEILGKENKPVNTAKSQLKIMMVGLQGSGKTTTAGKLANYFRNKYNKKPLLVAADIYRPAAIDQLRTLAKQVRVDF\*EEGTQRPDLTVKNALHKADENENNLVIVDTAGRLQTNEELMQELVNVKKTLNPDEVFLVVDAMAGQDIINVATEFNN\*LKLTGIIVTKLDSDARAGAVLSLTSLLNVPIKFTGTGEKIGSIDSFYPERMADRILGLGDIMTLAEKAADVIDEKQVRGSMQRMMAGKMDLEDLMRQMSQISKLGSFSGIAKMIPGLNSISENQIDDAENKMKI\*TILLSSMTLKERRDPRVFKKEPSRRMRVLKGSGRSPDELNKLLKQ\*EVSRDKMAELGKMLQKGKNPFSKSGGIFG\*

>UUR10\_RS00540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKHKTKKLTLLMAGITLTSLCTVFAITACSKQKSQSNSQTKPNKVIEKVDQAFFDEFKTKIEQKRTLPNIKITSTFKIPFEKNENTLKSPLFKIGDKSVYDLKQNEIPIT\*VQDLKDYFLSQKTILTYYALANLKLTSTDAKGAYFLQFIQYVQKMQQKGFLSEDFYQQL\*YLVSEISDYDMQNGILRSVYRIANPNLKIKDLYLDGSIYGFKKQKSKYMNFTNLFQ\*PSNDEKVCFDIVFKNKNTNQTYTKNIELTYSKEKKYILDSLIDYSEFAPGEYELVSIKKHDDTNAKNLINPNNPNIARIFKVKVFKENEKFKPITLATINQQEADEYDRQNNQIIYKNNSEIGILNDPNKIKELGTFLYFKKSLSEITIDDLDRYFKTYFINPEQDFNNFSRQYKITKIDKEKQTVELSVLHINNKTNETYVSPINFKFHYQHVYDVNKNTDAKLELNFDESKKEQKQKLQALVNKLDFNKLTYNYLSELALVMFEDVDLENTKIHVEMIKNKDRSITLKAYVDKAYKNGKLKISNKADILIKEFKVNYFMTNYFK\*

>UUR10\_RS01150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L14

MIQHMTRLKVADNTGAKEVGVIKVLGGSKKRYASVGDIVVVSVKKATPAGLIAKGQMAKAVIVRTKKSIRRESGLLIRFDENACVLIKEDKTPRGSRIFGPVAREIRDRGYTKIASLAPEVL\*

>UUR10\_RS00285 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit beta

MNNGRVIKI\*SDIVEVEFKNELPALNHLLTTHDGNTFLLVKRLVDATHARAIVVYASKELAINDVIVNTNKSFMVPVGNDAKNNIYNF\*GNPLLKTDKKPQYVEMNSTILNERYVDKSVEIVETGIKAIDFFMPILKGYKLGIFGGAGVGKTVLMKEIIFNLNRHKQANSNIFIGSGERSREAIELYDELNASNLMPNSVMFISKMNEAPGARSSIVPIGITAAEYLRDQNKENVLLFIDNIYRFIQAENEVSTALGKKPSVGGYQSTLESDVTHVQNRLFKNKNGSITSFQTIFLPMDDLSDPSAVAVFNHLDGKLVLSRAQAAKNIFPAFDPLASSTNAIDPKIIGQRHYDAIIETKKVLKAYKDLEDVILILGFDELDAESKIIVKKALQLEMFFTQNFFMTEHFTKAPGQFVPLKETVESVIRILEGKYLKQNPESFAYIGSNKDIPQDN\*

>UUR10\_RS01105 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L4

MAKIKLLSIDGNFAKELEVTSDLFVEVPHKQAMFDSVLAENAAERQGTHSTLTKGEVRGGGKKP\*RQKHTGKARTGSTRNPH\*TGGGVVFGPKPNRNYNLKVNAKVRLLAFKSALTIKLNEGKMLGLVANSDLETPSTKKMVNFINNANLENQKVLLVIADHFSNIKKSTNNLQKVTTKL\*YQVSVRDLMHANVVVVAEEAFTNYARKVSK\*

>UUR10\_RS01595 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-2

MAKKNIKQKKDNRIAIDVKKHIKKVDVGVFGGTFVFTSPLSIAELAPKLNKSTNEIIMRYFKKGVVYNLNTILDEEQIGELCLEYDLDFKIEKNVNTENLLENIAFDDLEADLVARAPIVTIMGHVDHGKTTLLDTIRKSSVTASEAGGITQHIGAYQILKGDKPITFIDTPGHEAFTEMRARGANLTDIVILVVAADDGIKMQTEEAIDHAKAANVPIIVFVNKMDKYEANPDKVLNQLSAKEIVAEELGGDIVFVKGSALKNEGIFELLDSILLIAELNDYKANPNRLAYGTTIEANLDKGHGPLATLLVQNGTLRKGDYLVVGSTYGKIRNMFDEYDNEIEMALPSKPVKVSGFEEVPTAGDKFLALADEKQARAIANDVKQKKIRLERSMLQSSDIRAKIANGELKNINLIIKADVQGSLEALKGIFNSINIEGVTTTLVRSAIGTISESDVRLAQTSDAIIIGFNVRANRIIKDLADSVGVQIMNYDIIYKFKEDLEA\*MKGTLDPIIVEEVIGEAKVLKLFKHSQVGTICGCRVINGKIKRNALVRVLRDGIVIYNSKIATLQHNKDSVNEVIADKECGLTIANFNDVKENDIIEVYVKVEKNHDEVK\*

>UUR10\_RS01025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome small subunit-dependent GTPase A

MRAKITSVIVNNFYVYIYDLKIETKAIPKGIFKHDSHELKPMVGDDIEVELVDGVYLIVKIYDRYNQLIRPKVANVDIVLVVASIVQPDLNTLTLNKYLAFYEARNVKNVAIGLSKYDLASDSLKQKVDQLILDYQRNNYKVFVLTNEHDISLLKKFIKKHTLCLAGNSGVGKSTLINKLDPSIKQRTQEISQFLNRGKHTTTSTKLISFANGFLVDTPGFGNLEVNLTKNEMANAFSDFANYARFCKFSNCLHIDEPHCAIKKAVNDDQIVN\*RYDDYLKIMKKLPNDVLEIKTRNQNKK\*

>UUR10\_RS01285 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 valine--tRNA ligase

VKKKLNKNYLFKEVESNKLLF\*QENNLFKAQANSTKPPFAIVLPPPNVTGHLHIGHAYDFTLPDILMRYKKLQGYDAFIVPGTDHAGIATQTKFEKILKTNEQVDRFVLGRKAFLEKLKI\*KDEQTYYIHKQ\*NALGLGLDYNNYLFTLDEPVVQTVREVFVKMFNENIIYRAKKLVN\*DIQLKTAISNIEVIHKEIEQKLYYIKYSSEDQKDFVIVATSRPETMFGDKHLIMNPNDQRYVHLHNKIFINPINNAKMSVILDDYIDIEFGTGVMKCTPAHDFNDYELAKKHNLELINIMNEDGTLNEKCAEFKGLDRLQARALIVDKLQKSNHLVKIENYQSNVGFSERTNEIVEPYLSYQ\*FIKMDNLVKNTIKMQNDFNDKVDFYPNRFNKTLLT\*LENTED\*CISRQL\*\*GHQIPV\*YHKKTNEIYCNTTPPKDLEN\*IQDEDVLDT\*FSSGM\*PLLTTK\*NSNDQFFKRYFPTALMVTGMDILFF\*VSRMMNFSQYLVQKRPFKDVLIHGLIRDAQGKKMSKSLGNGIDPFDIINEYGLDTMRLFFASSTTVGEDLNFSTERLGAN\*NYLNKI\*NIAKYIENLDEINESFSIQDVHEFCDVNKWIIAELSKLSVEMNKNMDKYNLVVATKDLYDFI\*NTFASNYLEYTKVLLQDTTFKNETIKTIRYVFNQILIMLHPFAPNISEEI\*LNLNQTNESILLQKYPMVNFEFESIIINKIAKIILEIRKLRLQENINNKTNLCFELVSANDEFYNSNIKLINLLLVLVNAKVSEIKKSSVNSCTYELVIDDFILKT\*YEKSIDYDTQIKKVSEQLKYLENEIKRATNLLNNQGFVNKAPTELIAKEKDKLNNLEKEQANLLKIFADLKQKVN\*

>UUR10\_RS00515 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MIKK\*NSKRK\*SLVCASLVIGSASVVTATACANTNNKVVNAGFIYNGSTTNDAITGFDINDYIIKVPSSDVNLNQQILRNNNYEQKPIL\*EDYLKQYDSVKKQHDQQTKSFYEYV\*INKASKYKNLNKAIDINDPYFADWFLKLTPNTLKNDLYDFINDIRKDNMKPSLVFSSSEPQVEV\*KDLGNNQKQKIAPNQVIFEPLTQEDTKNNVTLFKKNKHLRVNISF\*YALTNQNSANVLINDPFYKKPSGIASNTSEKYFINIQNSPISLSFSHTDRLEHDIYSAQTTSIKNTYKMRYYFDNIRVEKQVTKVKSNAKRGDQNAEENLAKEFYFANDNNEKFSFGTRSYTLNNEITQASYEQDIFSLDQKIKNELKKLNQQQILKDIEYAFASGYDVAIDSISSIFNILKGVANDLDLKELFLQSTQDFKNLTYNITQHNNLTNLIALITSNQSLGVVIDGFKPILKEIIYKNASIDQSVKNTI\*SKIESMDFKNNLIAEIGQIKTLLDSISLAEIKTYKPIINKLLELISLIEARSKKDPKNYGFIDGLDELFSFFLNLKQDDLPSNINFKISDQNYGLYDLIVEVKKIVDNLVPHENQYDPKNQQIISTNYFLSKIKVLDLISLNKTNELDYRKGVESIFSLLKKFQVAIPEIVYKIIDELLIQNTN\*NKENIKKLLDAILYPKITSNDASINDLKSYFKYGISKPEITSKELEYDQNNLLIKKLNIKYRYKVLANAEFDIKPLFDLLPQKAPSFINIGSL\*DQIKKEFPYKVVLAKDDYVDHTISINEPQELTPLVFQDRSDHDKYKIGYSFYPTHTVQTHMPNSMKAIIEEISSRNDRLLPNKYIAQLLS\*LFYKKWVFTNPLAIYETFEGDKKVANDKNVKYLIKDNLNKYLKHYDTNTYYEGFDFKHFSNNLENKVNNQTIRNLILAKIKTIKTDGQELYQDKLGRKVIATSAYDQINLTLQELIDYKLLEFGKKVDLKKDVYLSAVAFNFGLNTNDSDQTNALNNNDEIKYNLNILKKVVITLHFTKPTLDLSDPNHPKLVNSYTFVV\*

>UUR10\_RS01320 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MEQIKNLINLQIKLKPIQKTFYDI\*SKTFINGIDNNGEIHQQNKQIILEIYTTLKTFLNQNQNVISKLPLNEVKKIANDILKKEINLEQPLVDYYYQSSSYFILIPYLIQILYQSYDANKPAYKAMAKFIIKNNLGLFKE\*DLIERQTLEIVKLKTNLIEDQRKVINLFSCEQREAQHNR

FVKLFNNFILVY\*TKEEVKYIEMIRFLMYFA\*IPIIFIILLVLILGLYFGLTNSSSSSTTQLLLNLINLY\*

>UUR10\_RS01515 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA1(Val) (adenine(37)-N6)-methyltransferase

MQKKYIKNTLGFDTNLFVYQDKQMFNYSVDTVLLANFISLSSKTKKVLEIGTNNAALSIFLASRKEDMNIDAIEIQSEAIDLALLNVKENHLEKQINIIHADFNEY\*KTFDKIENNKYDAIICNPPFYKQDKIIPSTKKPLKTLALYEIALNFEQIMQGCAKIIKQKANLAMVIPTTRLVDLLEMMRKYQFEPKRIKMIYPRIYEQSNLVLVEARYKTG\*GTHFEPNLYLHYEDKQNHEYTKEVLK\*YKPIKFKKSNEGEAK\*

>UUR10\_RS01795 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron chelate uptake ABC transporter family permease subunit

MQTKQVNINKKDLSIYKKIIEAKKFVSTQIRRPYMITIIVLTFIILAVGMFFMNVFYERSTYFDANYNTHVTYFRT\*AKVVADDKSILLYWYPPIVKLFVAISMPVAGYAIQITTQNRLSSPSTLGYIPVSILAYVAMLMIDQGKS\*LVYVFGFIFSSFIILVNYILQRQKSSNRSFKPVLIGFAISATITAVGLVIAVSRPNILNRVTI\*TGELPNVYE\*LKLYISMPLILICLFAFLVLSPKLKIMQRDFALAKSLGIKVNLIF\*VVTVLTAIVTIATVNITSPMILLGLIIPNIVRATFNKHEPLFVFFVSIVFSLALLEVSLFLSLNYRFGPNFLMAIVSAFVLVFIMRKHG\*

>UUR10\_RS02135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 holo-ACP synthase

MKLVHGIDIIE\*NREELNNPSFAKRILVDDELKYYLQLNSLKEKNRYLASIFASKEAVMKAFKLKYGYNDILILKTKNERQVYLNKILIKELVLSISYTENYVVASVVGLINTVESNS\*

>UUR10\_RS03365 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HPr family phosphocarrier protein

MISREFTIVAELSTFIKAITYFVNTASDFSSSITIKANGRQADAKSIINIMALGIKQGTKIELSAVGNDANEAINKLEEILIEQKLI\*

>UUR10\_RS00440 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 recombinase RecA

MKENDKLEKLDPIATLEAKFAKSTYFIADEIKNEKVSAISTGSIHIDQITGINGIPVGKITEIYGNESSGKTTIALQTIAECQKKGGTAVLLDLEGSFDLNYAKSLKVDLTKLIITQPQTGEQAFDMIETLIKTNSIDLIVVDSVAAMIPESEYQANMSEALMGAHARLMSKGLRKIQPLMNKSQTAIIFINQLREKINTFFGNPEMTTGGKALKFYASLRIETRKADLIKEGINKIGIKTKVTTVKNKLAPPLQTCFIDVFFGHGFDYDNEIIDFAIQYGILKKNGSWFYFDDNKIGQGREQLKNTLLKNNELFTQVSEKTLAFVNNEKINQ\*

>UUR10\_RS00830 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 23S rRNA (pseudouridine(1915)-N(3))-methyltransferase RlmH

MIIKIISVGKLKQTGFVNLVNDYLKRINYYLKCQEIVVNDEPEPTQISTKLLEQIKDKEANRILKNINQNDFVIALIIEGKIISSEMLAENLQN\*LNASYPNICFVIGGSNGLHEKIYERANYHLSLSKMTFAHGLAKVMVCEQIYRALSILNNGKYHK\*

>UUR10\_RS01195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecY

MTNKQKKKNAFRQLLMIFKNKKVLVALIVTLSILILFRIGSVIPMPYIKLNGNFGNQGSFFSIINLLGGGGLSQFSLFAIGIGPYITAQIIMQLLSSELVPPLAKLSKSGERGRKKIEVITRIITLPLAVMQAVIIINLMTRANGFISIVPNAPFAIGSPLFYVTYIFLMVGGTYISLFLADLISKKGVGNGITLLILTGIVASLFNHFIAIFSNLGSLTSSKVSQIIGFILYILFYIMILIGVVFVNNSTRKIPIQQTGQALILDHEKLPFLPIKIMTAGVMPVIFASSVLAIPAQVAEFLDKQSMGYYVIHNYFIVDS\*TGLAIYVVLILLFTFFFSYVQLNPPKMAEDIKKAGRFIPGVQVGMDTEKHITKVIYRVN\*IGAPILAFLACLPHLVALVAKTINHGIPVIQPSTIFGGTSIIIMVTATLEL\*NAIKSTSTSTSYAYQRKELETAITISVESDKSSKSQI\*\*

>UUR10\_RS00890 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribose-phosphate pyrophosphokinase

MPKNHDILLFSLSNSRQLANKIANLLKIELSPIRIDKFADGEFIVAPQVPVRGRRVIIIQSTSKPVNDSLMELLIAIDSIKRASAKAISVVIPYYGYARQDRKAKPREPITARLVAKMIESAGATSVLT\*DIHSLQTQGFFDIPFDSLEAV\*VLMKHYFDAYKDSSNITIVSPDYGGVKRAREISIATGATLAIVDKRRSGKNQVEINNVLGDVQGRDCVIVDDMIDTGGTILGAAKIVREKGAKSITIIATHGLFNNNARERFEQAIKDKIINKVCIADTIENEPFEGLEIVSIAPAIAKCIEIYSKGAGSMSFVHDENSKFLFTKKNNK\*

>UUR10\_RS01140 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L29

MSSIAQDLRKKDSLELEKIVIELKAKLLELRFAAANGEAEKLHTAKEIRKTIARALTILNERELAEKLNNKEANK\*

>UUR10\_RS00430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase (ATP-hydrolyzing) subunit A

MALKKPKKSRLTTEEIKQQLEGSTIKEQSITKEVETSFLDYSMSVIVARALPDVRDGFKPVHRRALFAAFENGMTHDKPYKKSAR\*VGDVIGKYHPHGDQAVYQTIVRMAQEFSMRYLLVDGHGNFGSIDGDSAAAMRYTEARLSKISYELLKYIDKETVDFVPNYDASEQEPSVLPSGFPNLLTNGTTGIAVGMATNIPPHNLTEVCQAIKAYAKNHDISIPEIMEHLKGPDFPTGAEIYGDSGIINYFNTGRGSVTIRSKYEIEDIGQGRVAIVVTEIPYMVNKVNLIEKIVELVTNKQIEGISDLRDESSRDGIRIVIEVKRDVIPEVLLNKLFKTTALQTNFSVNNLALVNGVPMVLNIKEMIKYYFEHQIEVLVRRTKFDLRKAKERIHIVEGLVIAVNNIDEVIKIIKASGDDDIASKALIARFGLTELQTKAILEMRLRALTGLNIDKLKKEYEDLLLIIEDLEDILENYDRQVNIICENLDYLIEKFGDERRTEIMYGVSSHIDDEDLIPVEDIVVTMSKRGYFKRLPIDTYKNQRRGGVGVQGLKTYEDDDVEKILVANTHTDLLFFSDLGRVYRLRGHEVPLGSRQSKGIPAINFLPIEKSESILTILPIDNYEQGSLFFTTSKGIIKRANLSDFESIRANGKIAITLKEGDKLFSVMQTLGNDEVFIGASNGNVIRFNENDAREMGRIATGVKGINLEDDEYVVGTGLSSHGEYVLAVGSKGLGKLTDINDYRLTKRGAKGVNTLKVNDRTGNLVSIKVVNRDEEALIITTSGKVIRLSIQDISVIGRNTSGVKLISLENKEEVKSIAIFKKEEIDDNDDEQKTSHGNEHNLE\*

>UUR10\_RS01230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit alpha

MRKFLKYQLDVPSINSEDKNRTVVKIAPLEIGFGDTLGNALRRICLSSIPGASMFAVKFGGYSHEFQPYEGVKEDITHIILNLKNLAIKIDELIYSEDYFNNLLIDK\*PKMKINFKGPGVITAKDIVCPVGFEIVNQDLYIAEVTKPIDVEIEIFAKTGRGRVDFNTNKDFVSTLHIIATDSNYSPVLHYAYNVEMIKDSKSSMSEILTIDIATNGTISGSEAIAIAAKIMQAHLEPIMNIDKTINEMIIMREREEEEKRQNASISIDDLDLTVRAYNALKQSGINTTAELIELTKSQLEKIKNLGRKSVTEIIQKLTERSLELKKD\*

>UUR10\_RS03240 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (guanosine(37)-N1)-methyltransferase TrmD

MKISILSLFPELYETWINHSIISNAIKNNQVTIEIINFRLYTNDKHKKVDDYQYGGGAGMVLMIEPIVSAIRAIRTPNSYVILTTPKGQVFNQELANEFVSKYDHIIIIAGHYEGFDERINYYVDAQYSIGDFVLTGGELPSMVISDAVIRLLDGVISSSSLESESFNNYLLDYPVYTRPVVFEGHQVPDVLLSGHHKNIADFRKQQQEMITKKNRPDLYQKYLNSKK\*

>UUR10\_RS01235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L17

MSYINKPGKTRA\*RKMVSRQQVSDVISHGSIVTTKTKAKESQRHVDHLITLAKKNTLASRRAAAAILLGTNQHSADDLLRKLFNELGPKYANRAGGYTRVIKLGNRPGDNTEEAVLQLV\*

>UUR10\_RS01445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor P

MATIIQAKDLRAGHTFLYKGSIYQVIENSFNKTAMREGIVKCKVKNLRTGAITVEVLTGEKVEQAIIEKSKMTFSYDDGSGYVFMDNETYEQISIPYNQLS\*EKNFIEEGTEVSVMRYDGELMGVSLPDQLVVTIVEAEEAVQGNSVQNATKRA\*LASK\*EFQVPQFIKSGEKVIINPSNGQYVGRAK\*

>UUR10\_RS00250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MKIKKLIASVSIITPIVFVSALAASCVNNKHEDKNIVHNSSDHGNNKKNNFTNDLNQNLTTHEFKSNLISTSQLDNIAKLINFTYENKANTYLKNILINQLKHSPIQNQDFKLEIIGLYPKQNSLQDLIIYYKLTNQKTKEIKGYYFELNGFKKPDNTIFSNQLTPELKKIIDTIQFKKTFDLAINNQQVLNYENVLPSQIKNQLLMGLKVIQKEYTDKIKLSVLDVLFINEGGQINANKLGAFSLLLEVLDLKSKKTFQILIPVDKFKTNPYGADEYDLLPTQVNNGFAPTSLAQINQYNNADQQTRYLYDNENYLKSLKAYQRNVN\*YQIRQDLINNKQKINEFDQKAPQVFQDSYESAARKGFTLPVYDEDGKYQGLSFNETEIGKSVS\*VDAIGKDQWKINGLARTLPNDMYKQIALQTFGIQIQTPNGKPRESDIVAGTM\*IMDYQKRNDNKYPTKWYFGTNLHVAEALKSTTTVFGINKIMPTVKTKTTLGLANADDNIYRFSLVSKDNQPNMDKPISNGIKTIYDGRDFLKLNPSDLLTSKLKNKYHNLQEFVDFAVFEIDFEKIKLGSVTKNFYSGSD\*SVDKYNNLDPSELAKLITNDYAQKPNEQIKFLSKSYLNDYARINVPLDSKYNQAFDTNKYDELYAVGWPSSASDYFLDPIKDQKQFESRRESYSL\*INSNYQFYNKLNHNPPLFPLTQINRGDFLSYNIGYRSFTNKPGLLDAFIASPITGKTIHKSTDNQNYIGFGLNYLPMHYSPIGGSSGTSLRNQKNELVGIWHVGNGFAQTGLAVAFRSEGYDYHGLYGSYNLPQYDLIYGGGKNQKTSYRQAMMALYKNKNIATALFPNGFGEDQIPSAFKFKN\*

>UUR10\_RS00820 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF4234 domain-containing protein

MKNLNTKQKSLIIFLSIITLGIFAIYFFSKAKKTSQIKNTHLTTSSKIPFSLTAFYDCVGSKDNLANVDATINTLKIELKEASLLNNEELKHLGAKGIMRNQTKISIIFGDFCLELKELIKKDLLS\*

>UUR10\_RS01155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L24

MNRIKKGDTVVVISGKNKNKSGVVIQVNPKEQTALVEGVNKIKRHQKKDQTHEQSGIIEKEAPIRLCKLALVDPKGKDKGKATKVKYLLKDNKKVRVARKSGSELDANKK\*

>UUR10\_RS02205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nucleotide exchange factor GrpE

MSKNNENIKHQNEGKLHDQVDKKETKNHAKQEFKYKELYEHELKKNKELQNVNELLINKNQQLEIQINQLNQDFVKQLETKTKQAQEILEQKVNELEARHETKVNDAVFKIFKFKMEPLLDAINHFTKIVNQNYDDPKIQAFIEGFKMFSQNMIDGLENLKITKISPQINDMLNDDTMEVFEVVQNTNKPSMHVTEVISDGFKYNDKVIKFAVVKVAK\*

>UUR10\_RS01730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 segregation/condensation protein B

MSNDKKNKKNSLNDELDLAKYTLHNVSVKNDEDENDLELD\*ADIDDEIIDNNQQVYQKKRNNHKTRLFLEKDNEINNHGQVGLYKETINQPKALSGKEFLEFVNSKLIQKKVEKSNYDGIDNEFLENRLVKNNNKILREKLKPQNDFNKIFKPKGLDDYIDEQQAEAQKVEFKNDFNNSTKKPKSIKQNSVSFRNSFNLNDLDQKQIVNIKSIIDSTLFLAGEEGVSLQDLKRTTGLGESSQIKLILNELQKDYDADDSGLILVQFGDKFKLLTQSKNKDALSKFVTTSFKTPLSQRNLETLAIIAYNQPTTRAKIQAIRDRDPKPSIDALLKLNLIVEAGRQDTPGHPILYTVSQKFYDLFGIRNLTELPRLNKEIKEFNPIDETTN\*

>UUR10\_RS02965 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF2188 domain-containing protein

MATDDKVVYYLSPNEDKG\*KIFKKGGERATKLFSTKKEALEYIKTLGRNQNAVVYIQTKDGKFQDVRNYREK\*

>UUR10\_RS01065 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKK\*QKILTIALPTSLLVAIPIVAASCSTKSEAQKEFEKTYKEYLS\*LDKLASKMPVLKEAFSTLKEEINKQINKSEKLSDEAYKALTASLKVSIDGMKKTLGQN\*

>UUR10\_RS01170 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S8

MYLDPIAELITKINNGRKAHKAEVSFATSKLKTAILELLVKEGYIKSYDIRPTENNKSETVVKLKYKNQTTSSINGFKQISKPGLRIYSTHLNLPKVLNGLGIAIITTSKGVMSDKQARKENVGGEVIAYV\*\*

>UUR10\_RS01310 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MFNQILKRRKRHLNFEIFIFFFILFLIAFLAL\*IISGNIQTITDFIKTKIYDASPQLKYLTSVKIEPFNNLEEVLDFIIKNKTLIKELQNQPEILDAIKNNPQILKTISDNQEILKQISEYKAFIEVAGKQPEILKFAQNNKELIKQIQAKPELLDLIKNHSNLIDHLKANEKYMDIIKQNPQMLKDLYHIDDYLFNIIKTSLENEKENNILALAVKNATLINSFTKNLNLQEIKHAIEFYKTVDLNKLQVDDKLIDIIKNNYEIFEVFLKNPDYIKNLNDNQNIINAIQQNPDLIDNFKNFDFDVLVQKKDLVRALIKIIEYKPHPQIQKFNEKVFLKFFKDNRELANILNIVSLIGSALFIILYMIFMFASFIAHVSMLKQIKNFNKIFKEAKLKKAYLVFSLLLQFFFFVVLFVINFIVLIILVVDYNKLKAIVQDNDDGEREEAY\*

>UUR10\_RS02885 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease J

MAKINFLSLGGQDERGKSCFVLEVNDDIFIFNAGAKIPTSDVFGVNMIVCDYSYLEKNAKRVKGIFIGTPTFNNVMGIKLLLAQVGYKIPIYTSPIGAIVVKKIFEQKVNNKKIEPNIIELDPISDKKIGSIYVTAFKVSNSMPHSYGFVLKTSDGAIVYIDEFIISNDKNKTFDSQINALNNITKNNTLALIVGMGQAGNPCFTAPNHKNKGFYESILQNTKNRLIVGCYSNDAYSIFTLATIAKQQNRPFIVYSNNFINTFVGVLKLKLFNSKNLISLPVSEINNSKNAIIVVIENQDTLFPRLNKILHNEDKHITLTSEDQLVLGVVITPGFEMLAAQLSDEVGRLDIPYKALPKTVLPMTQSDEDLKHLINFLQPKYLIPINGLYKTEVKFTSTVTTS\*IKSDQIISISNGELFSIEDKVLNPKPQVIELEDKYISSFDALDVGANILFERAQMGENGVINLIVIFDKQFQKLFNYVEFDYCGVVNDDPQVRAQVKEIEETFKKRMGECLVYDDRKRLVLKDTKASLKRLLTKLFEKKFNKRPLVLPTVVDCYKTK\*

>UUR10\_RS03455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L34

MKRTFQPNNRKRAKVHGFRARMKTKNGRNVLARRRLKGRHSLTVSGEK\*

>UUR10\_RS02140 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DivIVA domain-containing protein

MININKINEYKNKKFIANKVGYDPESVDVFLDELINELETFVDEHKNLLTKIQELSEYKIKFEKEQEYTTSLNNFIDLLEKVVDKKSTFDV\*EKRPVRK\*

>UUR10\_RS02950 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MNKIKNNEKHLFLRFKKMHNLKTFSKKGHRLKTKQIVFIVFLILFCSSFFLIDLFFTGNHLNDVKRMFENSSLSNSTYIFVPVANIIAGFSLGVGSISIQITSKNILSGPSTLGFTPMTILASTISFIITSSGVFSTVLVYCLGLIFSFVVIGVNFILVRSNFLENNFKPILVAFGIGALVTGINIVLIATHDNLKIVG\*\*RFIAINNTLINNYRMIVSSVLMVISTIILLFLSPYLNIIKKDYLLAKSLGIKVNLIY\*LVAICVVIITISSSILLGIIALLGVIVGIITQTIFKKTHVLLLMVLAGLFGSGILSFSSYINEYIPSAREMIICIFAVPVFAYILSKRKGFVK\*

>UUR10\_RS03295 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MYTKLT\*NNYEIVEQIKENINPNQQLSALTLLL\*SYYGYDIYFEYLKDENIVLFYARANEQLKLIENDNIANQFIDKFFIIFIYFNDEKYN\*TTLIPIALKALKENFKNQSLLVASGIVYEDYLNDLLKFNHELVYT\*YSNFIYETESLKYFRGKALQKKRNNLNFFIKNFKEDYEIIKYDSQIHLNKVCVFLKN\*DIKNFINSKSMLVNSNCDLLSNTQNNPYFAGSILVKKSTNEIVGFTLVYIRPNIAEIIIEQTDRQIRGMYQYLLSQNLIINNVNNLLIDRQDGA\*SDNISASKLSYQPKIITKRANILIKE\*

>UUR10\_RS00230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein

MKKLKLITLSLSPIPIVAIMATACSTTKKEKEVDHKQDELTTINSNLQLEYPQNKDIETSAAIKEEIKPLNLPSGVVFSIKEISPKADDESTLIVKYTLKKGNITKEFKKEINGFKKIRKDQNISNLKDMHDDFKTIFNNIKLKDTFDFKLKGLFNSNFGEYDKLLPSQIINNFAQGVETRINTNQDRLGIEVIDVSYPNRNFGSANREGNLKMSLLVTDKKTKQVFIKSIIAYGFKTNAMGLDENGSIPGGGADLVKPKVDENNYFSKTQLERYEIDNQAYLNGLKGQHMGKT\*QQVRPELGDNEQKIKEFDEKAKGVSQDAYASAAYKGFTLPVYDKNGDFKGLSINESSYGQARS\*VDTRGRDE\*KTTGLPRTLPNEKYRDEALQTLGISSLTLKDGKKDT\*DKSSGTT\*ILDYQKTNDNKYPTK\*YFATNLHVADTITDKTTSIDLMKLMDSVKTKTTLRLSNLDENIYRFGFASKNNEFLLNHGLKKIYDGRDFLKTKPTEYLTEQQKEKYKDAGSFVDFAVFELDFEQLKLLSV\*NNQLNSNGGVITKYDHSSAQDLAKIITSDYANHSDKQIKFLPKSYLNDYSKIDVPLRSTSYKFEGKDELFALG\*PNSTRDGFFERYVDDDQTKYRTTDNFSL\*TNSDYRFFGKLTEQEGGQPAFPTERTERGNYLSYAIGYRSFIDKPGVLDAFISAPHTGNDLYKSLDGKKYINMGLEYMPRHYAPAGGASGSSVRNQNNEIVGIYHVSNEFASTGLATAFRSEGYDYKGLYGDKYKELPQYDLIYGGGKDQATGQSYREKMEEIYKNNNNIKTALFPNGFDQYDEKFKFNNNQSK\*

>UUR10\_RS01120 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S19

MSRSLKKGAYADPSLLKKVEAANASVSKKPIKT\*SRRSQIFPNFVGLTFEVHNGKTFLKVYVTEDMIGHKLGEFAPTRNFKNHTEAKR\*

>UUR10\_RS02910 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 UMP kinase

MSKQRIVIKISGACLRQDDNSIIDVNKINDLAKQIKEISKKYIVSIVLGGGNI\*RGHIAKELGMNRNLADNMGMMATIINGLALENALNNYNVDAIVLSAIKCDKLVYESSANNIKKAIEKEQVMIFVGGTGFPYFTTDSCAAIKAAETESSIILMGKNGVDGVYDSDPKTNPNAQFYQHITFNMALTKNLKVMDATALALCQENDINLLVFNIDKPNAIVDVLEKKIKHTIVSK\*

>UUR10\_RS00095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit delta

MKYSFANLLIQSPKTSLTLGVEQIMLAFINEKNHEQQAYYINKVKNNQYFDLKIYDSLSMKKSDVIDLQNAFLYDGIEDINLKFYLIKNIDLASKYVLNALLKFIEEPPKNTIAIFSTKNLNQVLKTIKSRCQLFYLPANYDLYHQLIKQINQPISATECDLIFDDLDELKTLLENNEINEVLAYHAKLNDIKSFETLNDLKETFKNLSILQIHYLLKLIFIKINNINSKQAILDLMRANLKININKNSLFTIIYTIIIENRGD\*

>UUR10\_RS01615 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 M48 family metallopeptidase

MLNFVKDLNFEINQKKIIVKVCLQPKIKYIKIKIINHEIVCLINNLTLVDIAQDFVINNKLKILKLYENDLKRIKYDEHYLN\*ITLLGIKFSTIKLVNDTFHCEFNLQKQIIYIYDQSQNLANSKLIYQKILKYLAEIIFPQIIKNAENITNLAVKEYEFGFYKSR\*GVYDKLKHIIKLSYFLVHYDQEIIQYVVIHELTHIKYQHHQNSF\*DFVLKYCKNAKIYNKQLKS\*

>UUR10\_RS02715 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein

MSFKTKTKFKQK\*KSVLAFLGIGALTVGTIVGTGVGAANYAYKNKKTGDFGDKISARTQVLLNDYQTEEEQIDLLKTTANLNQKHLQALGVNNVSAKYGIYQRINKNTKK\*EKFGEIVYEFYPTNSKLDIVNFLTKTKPYEQISSKIQLISLFTTANRLELQNISSLLSPKPELSQNKEFDDTN\*LTLNSDAKKIEIKTTNEGQQVEVSLPKTSADDQKFDLNFFAKEFDANFNYSASSGKTRAQTVAAFEKTKQNRKAPVNS\*LL\*VNRDGLIARFNMLLTLAHAQKQKYVDAKS\*DYVDATYKNLNVNGEEKAFID\*LATQDFDKYFIHNSSIIKPINVQVDQLLNIIRAFYQSSSHKVKTKDANNKDVAQTFKDNEMFYS\*NINKLSLINGFVYAIDYNNFFNYFEAPKKDDKLTLAQQSIVKYTSNKLVLNQKNTSRAFINTVYNLKQYYLPTYFAQAIYSENDIKKDYAKTFYSLLNNFSTKLPNLKQGAIKMLDPIDAILIGIAVLILIVAIIISVLYKVPGLIHSLLMAFNFVISLLLIKASNLGFSTETYGALIISVC\*PLLNLVNFNNHIKRLVEQKYSYKNALRISLNKTIINQGMFYLLMIFISLVFMYFGKNNISIFGFNLILITFSCLLISYILFIAMMYLL\*LIAHHVPKIHL\*RQYLAATNAISQNRFNEEFD\*NDQQKYQQFIFKAMNQKVYKLSFLIFVFVIGLAGLFVLGFVVPNMSFSFGSVYELTMKNDLKNFNEHEFSSFLDYEINNGIVSMYFDAKNPSALNEIASISLNNRFSDAIVYTSSLYNLINNITNSIAAYFIIFAIIVI\*SSI\*LKPQSTIPLIINLICTTLVSFGIAGLFRLFNNQASIIAINTSFVLIVSFSLHICLNLKQTLNLAKVLTKKQLQLQIQDSLIKYFNTYNIIYIVMLFTLLWLMIFAPLALISFNAIILFSLMFTHYLAIIIINYL\*MLTMILYERLLAKTLAKSDNANNVYDKFDEQEIVNINKF\*

>UUR10\_RS00765 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 putative DNA-binding protein

MLNKNKR\*YLIALYDIYQGLLTTKQCEYFNLHYFKDLSFSEIAELKEVSKSAISDCLNKVCDQLLKYEQALLIYEKNKKRNDLYTLINDSELVKKLKDI\*

>UUR10\_RS03225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MINLNNNQNNFFNHTIGMFHDKRIFCSRFIIICISIIYKMYINTIKINKR\*SIINKMYF\*

>UUR10\_RS03255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease J

MENAKKSPTYVYALGGLEEIGKNTYVVEHEDEIILIDAGIKFANASLPGFDGTVANFEYLIKNNHKIHSLVVTHGHEDHIGGIPHILRHVNIKTIYAPTLAAKLIERRLSEYKDIKPPRIIIFEDESMYKTKHFEVDFYRVCHSIPDSFGICVKTPNGYIVTTGDFRFDFATAGDETNLAKISQIANRGISVLMCESTSAEIPGFSESERYVIDNIRDYMVNIKGRTFISTFASNLGRVEEIIAIAVGLNKKICIIGKSMEANIKTSRKLGYLNVPESSFITHKELPFYKDHEIVVILTGSQGEKMAALNVMANNNHSKITLKPSDTIILSSNPIPGNYAQVEAMVNKLYKLGLTVYENSPNKKIHASGHATRSEHQLMIKAINPSYLFPIHGEYKMFRALKQNAVDQGFDKDHVIIATNGQKLQLLDGVLSHSNIHVDAEPKFINGYEISSKISKLLSERVVLSSDGILNLVLNADFKKAKLNSAVSISTRGCFFAKESTNLINKISNVAKSSLEDALAKKEFDEKKLKEIVSGSVKSIV\*K\*RKKNPIINITIINNDLVEQFRKDNNYVEFIKQTEVEEIEQEVDIDDLISNGL\*

>UUR10\_RS02315 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MVKSQKVIDVLNAHYNLNLELGSVYAQYAHIADDQFSMPFLAKFINDLSNDKLGVHKDLISEYARKIEIPLHTKFSVDVSFKPTDPKELVKHILETEQKVRKHVANMAKVCLEEGDFETFSFVK\*FVDDGIKDFDDVRTIHDFFENGNNNLQVEYAIRKYLKQMKLEEEK\*

>UUR10\_RS02915 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor Ts

MTKAELVKELRTRTQASMSECIKALDASENDIEKAII\*LRENGAIKAANKLKNAATDGVTLAKKVGNKAILIEVNCQTDFVAKNENFLAYANQILEEALAKVESKEDFDKLIINGKPIAESGLDLTAYIGEKIVFRRGEILKANDQQTLGVYTHNNNRVAAIILVDGKVEDEVVRNVAMHAAAMRPRYLNEQVVDQV\*LAKEREIIVNQLEHEGKPAAFAAKIIEGRLNKILKENCLVDQSYFKQPELTIEKYLKNNNAVAVGYYSYEVGEGIEKAPQMSFADEVAAQMKK\*

>UUR10\_RS00740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit A

MENYNPLDIMIALPHIAAIIIVTLIIATISLIYFSMIRKLTVHDVPNRFVIIIGMIVDYFRGLVVDTMGAKHVKLAPYVLFTFCYIFTANLVSLFGFKEATTASSVPLAMALATVVGGQIVALKYQKASFFLKFTFKIKGFPIMVNPLEIVSKLTPIISLTFRLWGNISAAAILLNITY\*AFAGFTNVVP\*VGVSLIAAVIILPILIGYFTCFAGTIQAFVFTLLTSIN\*GLEIKEGEEHYAHLAHKKAEKLAAKKLAELDAQNQAQNNEVQVVL\*

>UUR10\_RS00885 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA-binding protein

MYIYYNRTSLNDTLIFLKNNEQYDHQVFLNDDLLLFYRNKELIGFNL\*NASKYLENLSEGYLYPSLELMQKLSNLTKTKLVPNDDFKGFIVGVILEANLIPNTHLHVCLVDIGNQQVQIVCGAQNARVGLKTVVATPNLLMPNGNEIKKSKLMNYDSFGMLCSQKELNIEGFNSQGIVELNEQYQVGQLFTKVYSNLK\*

>UUR10\_RS01130 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S3

MGQKVNPNGLRFGINKQ\*LSR\*VPTDQLQMAK\*LVEDDKIRKYLSTKYKNAGIDHVEIERDQQRVNVYVYAVQSGLLIGTEASEKKLIELAINKIVGRKQLVSLKVVEVQIPELQASLMAREIADAIENRVSFRIAQKMVIKKVLKAGARGIKTHVSGRLGGVEMAREEGYTQGVMTLHTLRADIDYSMQEAHTTYGIIGVKV\*INRGELFGNKLVNSVAHAANKEFSRSSKPKKGSFNRSSRSKNTKPAPKQAVSE\*

>UUR10\_RS02400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cysteine desulfurase

MDNYKQFFP\*FKNNKDVVYLDSSATSLKPQVVVDAIVDYYTKYSTNPHNSDSNFAFHPHKIMYETRANVAKFINADFEEIVFTSGATESLNLIANGLRPYLKKDDEIVLTYVEHASNLLP\*YKLRDDLGIKIVFANQKNQFPQLSDFLNAISPKTKIVSFASGGNLIGNILDENVIIKHIKQLNPNILVCVDATQSVQHRMFDVEKCQSDFMVFSAHKLLGPTGIGVAYIKNEWIKKLQPLKYGGGMNFSIDLDSYQLYDDYMKFEGGTPHVAGFYGFNAALKFLMDIGYEKIHDHELKITQYAREQLALIPQIKTYVQDPTSSTITFSYEGVFCQDFASYLGTKNIIVRSGLSCAKIINNIIQTECAIRASFYIYNDFSDVDKLVQAIKEYQKGDELNGIL\*

>UUR10\_RS00530 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MAKYIKTGVSYINLDNARTINVLPEDIDSYLELGGDEAYQTSDLGSELYINYADFESTNILFDLKKEELQAKIDAFLVSNDTILDLSEVFLDVHFSEDDDYEEDCCCEDECCGDEENEVCCNSETKSLEVEEECCGGTKDDCCGGHEHEHHHHQH\*

>UUR10\_RS00850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphopyruvate hydratase

MKIVDLLAYQVLDSRGQPTVAVKLFLENDQSVVAMVPSGASTGTKEALELRDGDANYFFSKSVKLAIQNVNNIIRPHLLNKNVLNFFELDNLLINLDGTENKTKLGANALLGVSIVIVKGGAVAASKPLYQYIKEDLMHNYDEHYYAPIPLMNFINGGAHADNNLDIQEFMIVPLNAISFSQAIQTGSEIFHELAKILKANHLNTAKGDEGGFAPMLNDNYAALELLVRAIKKAHYFPSKKQGVCLALDVASSELYENEKYVFKKALSHNTNLEQTSFSSDE\*AKY\*SDLASQFPIISIEDCFDEND\*NGFSLFLKNNPHIQSVGDDLYCTNLKYLQKGINFKATNAILIKPNQIGTISETLDVIKYAQENNINTIISHRSGETEDTFIADFAIGVGAGQIKTGSLSRSERIAKYNRILEIEQELKDKLVYEPNKFFKFN\*

>UUR10\_RS00895 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease M5

MNKPIIQEVIVVEGKTDAQKIDQLVNAQIITTNGSEISKKTLALIKQAQLSKGVILFLDPDYQGEKIRKTITNYLKYGITKQCFISKDSMLDNAKKIGIAEANNDALLKALKSQATFIINPIESIS\*LEYLTLNLNNKKMRLMLCDYLNISYCNHKQLFKRLNMMQKTLEQIKAIIKEF\*

>UUR10\_RS00730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit B

MLDKRREYIAKEITDAENAKQEALQYLENAKSEHLAAQAETAEIIAKAKSESLTLRELLEKEAREAADKIISSAKISIANERRENLERLQTEAREAAYIAAEALMKKELSREDNDKLVDQFIKELETNEK\*

>UUR10\_RS00855 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 6-phosphofructokinase

MSQTSFLNSTKNILIITSGGDAPGMNASLVSLIHELMDSNFNVFVGIEGLLGLYNNLIEPIKNKHIFDVYFKEQGTIIKTSRFIKLNVNDEKTQVIKKNLLEHNIHKIIILGGQGSMQAGLVLTDLGFEVYGILHTIDNDFNQTQMCIGASSAAHFNQQLLTCLNYTAKAHNAFSLVEIMGHQCP\*LVNNSIGQLKPILTLTNQDPKYSVDQVIDLVKTKITLAKEYDPLIIVQELIYDQQ\*YEALKKAFAQKLHQTLRVTILNYLQRGAPVIDFDLQLAKDSASVLVDFIINKNEIENTSNMYVVVNKNDIKPQVIKFND\*

>UUR10\_RS02250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 5-3 exonuclease

MKKAIVIDGNSLIYRAFHATYKQAE\*AVENQLMPTNAIKLVASMIFKILNEDQFSYALIALDASKKTFRAQEYAAYKATRKPMDEKLVVQLPYIKKLFTAMGFHIISQPGIEADDFVGSFSNLMSKSNIDTIIYSTDRDMLQLINPNTKLKLLKTGTSIVQEINLANFALLNNGLLPKQIIDYKGLVGDSSDNLVGVKGIGPKTAINLILKYTNLENIYANLEEITPSVKNKLIEHEKMAFLSKKIATIQTDLLLDETLENFILKPYNIQELDTLFESLKINNMHNYYK\*

>UUR10\_RS02735 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA repair protein RecO

MAEIITKGYLVARRDYDVFDEILTFINEHGNRFVMFAPGTKRITSKNARALFFGNYLEIQFFHATNETKLSKLKKVIPLDQIDYKYENTYSMLILSELMSKVIDFNVEFYQFYQLILQYIILEYNDYYISCFLLVKFLIMNGINFNFRSCAYCNSSKNIKTFSLVDRGLVCVNCESKIINKIDYDPKALQL\*QKLYFASQVQKEQIEDNELTFKGLLKILNSIMYDQLGIYLTIIKNI\*

>UUR10\_RS00110 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MRIKTRFQQFLKYQFEQKTFFRFKKNKVFLPFVLLILTISLMLIAVAGASRFVNVFSYLID\*KIISQLLISGIALGISGYIIQRLTKNRLADSSLLGMGNINLVILTVLFLIFDFGQLQVQRRIEYILPFIYLIGSLIICFFIHFLCNSSGGYIFKRIIISGIVINLITIVIAQSLRILMSKESSMYLKIILLGNIESRTDFCFYFCLAMLIISII\*LMANSTKLKIMVTNQQLSEQLGINSKSLTLQTFVCISLLVSTSYSLSGNVIFVGIVAANVAFNYAKNKICNGIINAGLMGGIVLLVSYIFVVLILKLSADQVILLVPIISGPYFLYQVILLKN\*

>UUR10\_RS00210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA uridine-5-carboxymethylaminomethyl(34) synthesis enzyme MnmG

VKKYDVIVIGAGHAGLEAAFATSNLNLQTALITLDEKGIGMMPCNPSIGGPAKGIVTREIDALGGIQGKAADATTMQMKILNSSKGPGV\*AIRAQIDKIAYQR\*FKQQIKQQKNLDLIIAEVSDLLVENNIVKGVILSDQKIIQADYVIITTGTYLKSITHRGSVCVDEGADGTKNAKFLSDVLVKLGFELIRLKTGTPARIKKDSIDFTNMVLEPGTNQKIAFSHYHPVYKPYDKQLPCHIIYTNEQTHQIIRENLNKSAMYGGMISGIGPRYCPSIEDKIVKFSEKPRHQIFVEPESYELDSMYLGGFSTSMPIDVQEKMIRSLPGLEDCEILKYAYAIEYDAIDPTQLYPSLESKLVNNLFFAGQINGTSGYEEAAAQGLMAAINVSQKHKNKEPIVLGRDQAYIGVMIDDIVTKGVVEPYRLLTSRAEHRLALRNDNADDRLMKIGFEIGLLKPEVYDQYLNNLKQINEVLN\*LKTTTVGQIDDLKFTTLKTNSYLIDYLKRPEVKLNDLLIYCPIKIEDEQIINKVQIQVKFEGYIKNQEENLKQLKRLNNIKLHGIVDYKEVPNISLETIDKLNKIKPLDLEQASRISGVNLTDIAMIKYYLERIKND\*

>UUR10\_RS00410 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aminoacyl-tRNA hydrolase

VEKYLIVGLGNPGSNYAKTRHNAGFMVINEICNKLNLFLDNSKFNGMFAKTIYNNCVVFFCQPTTYMNLSGEFVSKMLKFYDIPIKNLIVIYDDVDTKLGVIKLRKKGSSGGQNGIKNIINLLKTEEIKRIRVGIGKDPHAKLDQYVLSNFKIDELVIIKPAIIKGALAALEAIGEDFDKVMNKFN\*

>UUR10\_RS00535 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 excinuclease ABC subunit UvrA

MDKIIIKGAKENNLKNIDLEIPKNKLVVITGVSGSGKSSLAFDTIFAEGKRRYFESLSSYARQFLGGNDKADVESIEGLSPTIAVDQKSTNQNPRSIVGTITEIYDYLRVLFARVGTPFCPNGHGQIKSQTPKQIADFLFSLPPRSKVQILAPIEIKKGYKINEVLNNLRSQGYLRVLVNNEVYQLDENLPQFLDNKKTDIAIIVDRLVLNIDHQTKTRALDAIEFALNYSGGEIAFKVDDNIHYFTQNDVCRVCGFKIKEIEPTLFSFNSPIGACEQCKGLGYNYVPDERKMIPNPNLSINEGGLDYFKNTVNTTNLD\*QRFNSIIKHYKIDKTKPLKELDRKEIDLLLYGSDEAIEIDITSANNKNYSSIDYVEGVLELVNRRYQETSSEMAREHYNKYMSEKVCKSCKGKKLSPQALSILINEINIIDFIEKNINEGIDFLLHLQLSEAQAKIANPILKEVLDRLGFLKNVGLEYLTLARPASSLSGGEAQRIRLATQIGSKLTGILYVLDEPSIGLHQRDNDKLIKTLKEMRDLGNTVIVVEHDEETMLAADYLIDIGPQAGVNGGYVIAAGTPQEVMQNPNSLTGQYLSKQKDILVPKTRRSGNGHKIILKGAKHNNLKNVDLTIPLGKFICVTGVSGSGKSSLILETLVKAIEYTNFNPFVIPGEYKDLIGASNVDKIVVVNQDAIGRTTRSNPATYVGVFDDIRTVFENTIEAKARGYTKSRFSFNIKGGRCERC\*GDGTIRIEMHFLPDVYISCEECHGKRYNDETLQVKFKGKSIYDVLKMPIDEALVFFENYPSIHRKLQLLVDVGLGYLELGASSTSLSGGEAQRIKLAKFLQRKPTGKTLFVLDEPTTGLHIDDVAKLIKILNKIVDGGDTVLVIEHNLDLIKVADYIIDVGPEGGNNGGKIIATGTPEQLLIKKDISYTAQYLEKYLKKN\*

>UUR10\_RS01270 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cation-translocating P-type ATPase

VKKNNEDQTDSFVSFDPQNTDPLTGLNDEQVLKSRQIYGFNEIKKKKKSNILTKFFKQFLDFMVILLVIAGIITLILAIVKPPHDITELIVQYVEVGVIGFILFLNAIFGTIQEVKAEKNTEALSKLTSPQAKVLRNNQILIIDSREVVIGDILILEAGD\*IPADALLINSSSLEVDEAVLTGESLPVQKDAKAIVKQGAGIGDRLNQIFSGTSITNGTAKAIVTNIGMNTEIGKIAKLINDQKVQLTPLQQKINKLSKIIGAFASVLCIAVFIIYIYLVGGGN\*EIN\*HPALVMAISLSIAAIPEGIVAIVTIILSFGVKQMAKKNALIKRLPAVETLGSANVICSDKTGTLTQNKMTVTKVFTNILKTTDLINEKDVYELIK\*ASIANNGSRNFNDKKQEYEFIGDPTETSIIEAALKLNIDKSELDKEFVRIHEFPFDSTRKLMSVIVRNNDNYYLVTKGAIDAIEKIVVEPITNDVYKANDFLGKQALRVLGVGIKKLAFLPTNFNQDELERELEFIGLVGMIDPPRPEAQEAVEIAIKAGIRPVMITGDHINTASAIAKQIGILNEGQEVLSGHELSSMSDEELINNVERYSVYARVSPTDKIRIVKA\*QSHDKVVSMTGDGVNDAPALKAADIGCAMGITGTDVSKASSDMILTDDNFATIINAVSLGRSIMDNIKRIIVLLLITNLAGLISLIFGIIILGINPMSSLQIL\*INVIAETLPGIALGVHLADANLMRHKPLKKSAPIVNKKM\*MTIFINGFFIGLISILLFYLGASSHFDFDFIAMRNEFKELANLEAIYQNV\*N\*LGENHEITNIVHEKIIAIKTPIMAGSSLTFIFMGMSLAFNALSLRSNHSIFINF\*KNSKYIVYSIIISVIMIIVITYTPHLNEVFNMNPYNMNGYE\*FNVFPFVLFTIPLGIFEVIKYVKYLKLRRSFDYKNKTYASLNQEIKSLNLKINNTKINYEKEYYKALLNNLIVKRKILINKCHKEI\*

>UUR10\_RS01670 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNNSDKQTNNLDENQQKPTTNDFFNDKNNQLTKVLNIPSVVKYTESKIKKSGKNFSINLIITTTTMFIVIGIIITIAIAIGIKLG\*

>UUR10\_RS00940 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cation-translocating P-type ATPase

MLKNNLIKKFQLLPINKRRYLISLTKTSIALLISIPLMVFEMLFMFKSNLILGLDGYFIYG\*IVFVLSIFIVFGLGFSFFKGAFFEVFK\*KKPGMSLLVVISTCVAFIYSTYSLISNTIIYKPKLHGFFETACMIIATMSVGQLVSDRIKLKANQDLQSLNDLQVKKYNSYDLNTKQVSEKVVFQAEINEYALVKKGEIVPLDGVLYSQIAEVDESSLTGEARPILKTINNDIIAGSINVGDNFIFKITKLYNDSTIKKIINGVNQIASSKPKIQVVADKISL\*FTPFILLMAILAFLLQAFVPSIQELPIAFLNLHGSNNDSNLYEKAAYVAVSVLVISCPCAFGIAVPLAVLIGAGHGAKSGITFNNSNIFEKIKKVNAIAFDKTGTLTYGKLQLKQVIGNDQFLDLIYQMESISLHPLAKSFVTYAIINNISMSTKLIDIKEVAGVGIIAKDIDGNVYELTSEHYANENQFDFSLINQKSSTSTNLLASNIIFSINKKVQSILVFEDEIRADAYETIKVLHENNIETYMITGDNTKVAQKIANELGIKHFYAQVKPEEKANIIKEIQNQQKTVMYVGDGINDLLALKQANVSISIGETNKATNAVADISLIKPDILNIYKVIKLTKTTKMFIVSSLL\*AFGYNLIFIPLALIGIIPPFISVLIMTTSDIAVVLNSLIFRLLKMRLVNRKQAHKLDLKIIDKAMLHK\*

>UUR10\_RS01005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 guanylate kinase

MKRGKLIVFSGPSGVGKHTILSKIIDRKELNLAYSVSMTTRKKREGEINGVDYYFVNDEEFKKAISNNELIE\*AEFVGNKYGTPRFVVEKLRNEGKNVILEIEVVGALQVLELFKNDDLISIFLLPPSLDELKNRLLKRNTETLETIEKRIQKASHELSIKDHYKYNIINDNPDHAANQLAEIILDEIKR\*

>UUR10\_RS01585 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusA

MSNSFKSKEFIEYFKDTAKQNEIELEVLSSIIKEAFEKTYLRTHPGENFETNINLKEGTINCFRNLVVVENEKAHNEDLETCLDDAVEILLDDARKINANAQIGDTIKQYISIDDFKSIEVGQIGSLLRQKITEIHNKRVADF\*KPSLMKMIRAKVAEINYNKQRNEITGVKVELDDQ\*KTLGYLSRKDRIGDEKFKVGETYDFIIKEVKEQSRL\*PVLLSRTEPELVEEILKREVVDIKNGNIEIKKIARIAGFKTKVAVSTNLLNIEPVAVVVGNKGLTITSISKQLNNERIDVIRYADDKRIFIANAIGLDKLKGLLVQENESDQRSAIAIVSKEDLPSVIGRGGANIRLIAKITE\*NIDVKTIEQAFEENVVYEKFDEKIYRS\*NIESINKKNVTNDEMLALIDNMQDEKVEKTEQVKDQLKQQEKQTIVSNNDDSENDDEQLEYLEGFEDFKF\*

>UUR10\_RS02125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 AAA domain-containing protein

MEFKQKNTSNPLEEFGRNLNQEILDNKIDPIIGRDEEIRRTIEILSRKTKNNPVLIGEPGVGKTAIVEGLAYRIVHKDVPSNLLDKTIIELSLSSLIAGASYQGQFEERINAILKEVKKSNGNIILFIDEIHQIVGMGRNQGSNMDVANILKPMMARGEIKLIGATTLDEYRLYIEKDQALERRFTKVLVNKPTIQETLTIMRGLKPR\*EAFHGIKIHDNALIAAVNLSERYINDRNLPDKAIDLIDEAAAKIKTQINSQPIYLDEIKRDLQHLQTEKAALESEKDEKSIKRLNDILEKIKLKQDEFNNLNDIYLKEKKQIDDLKNLRQKIERIQHDIEFYQSEGKYEKASRLLYSDLPALEKQRGELENKINENSSQKMIVDSLTENEIADVIARATGIPLNHLLADEKTKLLSLNKRIAAHVIGQDEAVKLISDAVIRGRAGINNPNQPIGSFLFLGPTGVGKTELAKTLAKELFDSQKALIRFDMSEYMEKHSVSKLVGAPPGYVGYENAGLLTESVKRKPYSILLFDEIEKAHPDVLNILLQILDEGSVKDAKNNEINFKNTIIIMTSNVGAEALLENNKTNALMELQKTFKPEILNRISEIIFFNKLSKEVIFKISENLLKELSDLLAKQDYSIKFNDNIAKIMVDEAYSSNYGARPLKRWITKHLENEIAKLIIENRITKNRNYEINYDREADQVLIK\*

>UUR10\_RS03215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSKKNQAFPNRLLNYKNIIVLVALLALMIISHLIVELIVDYHQYRVNVFIAYTCIFMVVFLYVIFSRQAYRRR\*AAKLRKYNEYKLSPWEIKLVDRFYTNAKYELRSVDYATIRLNILITIITLPSFIYALACMIAYIVKTVQSTT\*

>UUR10\_RS00835 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 triose-phosphate isomerase

MVKMKYIIANFKMNATEELINHFLNNLISFDEQKLTIGLAPGDLYLKTFVDLSQTKKVKLYAQNPSAYSKGPYTGQISCLQLLDSNIKNTLVGHSEIRIDCSQSIIDQKTKICMDLLDQVIICIGEPLDVYEQKKSLSFVLSQLANVINYKGLKKIIIAYEPI\*AIGTNLTLDLKHINHMIEGIKTYLYNCTGLNIPILYGGSVNANNIKELCTQKLIDGFLIGNASLDVNNFNQIINACK\*

>UUR10\_RS01050 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 site-specific integrase

MKDFIRYTKKRNLSLNTIRTYESVLKHYEPVLDS\*IKIRNKIINSNFKPRTIHLHKNVLLSFFEFKKLKRYLQNLKLLKLPQIEMKYFDVISKNNLYKKTDILDDDSLEIKKYKTIIRFLFETGIRAHELFFLEPVNNRLYVLGKGNKKRQIFFVKQTFEQLQKFYENLKGFETTKTLRLYIKKIIGKNFTPHSLRRSFATFMLIKGANPKTVMLQMGHANIQTTFSYLNLNEQTNRRIYNKIMYQNDAE\*

>UUR10\_RS01305 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MINQNKRFCFQYFKKQSNQPISIKESLKKYFDFKNQSVKSIIYNLVLAAFFLALFLIGRFLTKNLDFLNGFS\*QLQMGIFVLAIVCIPNFYYKLMYYIIAPLVMLAIGFSAEPFFGYLMPHYGFGLILFIDVILIITKK\*NQTIKKQIF\*TYLLVFSFSIIGYFIVWMGYSIQGTLFYNTPFAPSMIYNSLVTFGSMAINFGLYIIAIPVIAALKNKYSTKLI\*

>UUR10\_RS01665 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L32

MAVQQRRVSKSRKGMRRSHDHLTVSNTVACNECGKALLPHRACRDCKTYRSIKLSIK\*

>UUR10\_RS02280 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKTINLKKEFIQYCSSLKTQDFVQQYFNDDQLKEKLLKNRLVGLISVIVGFVIGVAIIICGAFVNKGNGANLNSGAIVCIIIGIFIFLCLLIPYSIVANQNKKIMHDYIEHHFNEANVAQLIKKISTFFQEFRLLSGSFLNFKQSSQVINVNYCNDQYSLIYSFQPQPQVQLMKNNNSNKISSKE\*DLKGNYDLKIYELQK\*NAGFSKFYFENNVESIAFQIETKLGTIINDFEELLIKGGF\*

>UUR10\_RS02360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 TlyA family RNA methyltransferase

MSQRLDHYLKNTNQCETRSKAIDLIKRGFVFVNNLQILKPSFLVQENDFVDIKNNENNFVSKGGYKLFKIIQELNLKIKDFIIADLGSSTGGFTDCCLQLGAKKVYAIDVGVDLLHPNLKNHPKIVNYEKTNVKNLDKSYFLEELDLIVGDLSFISLEQIFPTIEKISSCKTLLLLLIKPQFELGKDIANKYKGIIKNKNLQQLAINKIINLANNYGFKYKHLTPTDIFDQKKQNQEYMIFLQKYAK\*

>UUR10\_RS03000 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S7

MRKLKPQKRQVLADPVYNSRLVTKLINAIMYDGKKGLAQSIIYSAFEIVEQKTGKPALEVFNKAIDNVMPIIELKVRRVGGSNFQVPTEVTPERRQTLGLR\*ITLYARLRHEHTMIEKLAHEIIDASNNVGAAIKKKEDTHKMAEANKAFAHLR\*\*

>UUR10\_RS00215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (guanine(527)-N(7))-methyltransferase RsmG

MTRKDFFNVLTRYFP\*VDEQTFISFEKYKTIIQKYNQIFNLTRLDSDDKIYQNFFLDSLAPYKELDFFTQNTNLKLIDIGSGSGIPGVVLKIIFKNLNLTLLEANQKRCEFLKILTQELGLNDVLI\*NMRAEDLTQSMRESFDVATSRAVASLDKILEISAAFVKVNGYLIQPKSIKFYEEELKAKNIIKTLYLERIALKDF\*ENDYHHLVGVYLKKQITPLQFPRP\*NLILKKPL\*

>UUR10\_RS03395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome biogenesis GTPase YlqF

MDIINKKIN\*FPGHMKKATDEILKNLKNVDFFIQLVDARCPITSSNNELIKQIASKPIINLANKADLSD\*NTNFNNDFLLISTKKVNDKNLVIKHLYQLFEQKIKTYQKKGLVNPKFIGMIIGLPNIGKSSLINFLAPKKTLKVENRPGVTKTQSIRQINQHFYLIDTPGIFLKDIQKERDGFVLTLINCIKKEVLELEAIIRFAYEFYLKNYQKDLFIRYKINQVMNFEDFIDYICQLYNYKLVNNEFDYSRAYENLFNDFCNGLICKVNYDQ\*

>UUR10\_RS02195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycerol-3-phosphate acyltransferase

MDQVYSVAMAYILTLIISPLYSYLIGSLNASIILSLLLKKQDIRHFASKNAGMTNMTRVYGKKLGILTLFLDIVKPIITISLTYIIYKYALNAPFVLSNGFNQAILVYFGGIFTIIGHCYPIFFKFQGGKGVASYGGFLITIDPIVAVIGIITLLIILLITKYMSLSAMITATITCFLVLIPGINYIPYYNEHFVEYLFDLNHVIKGTWYV\*LFLLISASILIYRHKTNILSIATKQERKTFLFQPKPKNNI\*

>UUR10\_RS02975 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MATLIEKSPFIVRRYIFKKRYCVFTTL\*EVIKDSSSFITSSLFSSLALLLITVIIALHKFNGAFAATSISYITIFQFSFIQLGGNLGVVLAL\*AKRLYDGSKHKFVPAHQTVNLASFYAFTFGLVMSGVYLASAYTYNLYANIHQNTLFAQLFGEQYL\*SSLALVVLAPVHNYFLISI\*SNDRRKILFTIILDFATWTTCLVTSFLLGKYSVLAYNGYGLGLSIGYIA\*TIIISFIKFHKE\*KINNFGLSLNLLKITIKQI\*SQTVLSVFASVAKMFVLLALYHLINQKMVGSVPLNLQSSRIL\*YQSMLFIQGFGFGFADYLFYVFQKQMIRDRRYHSRQLFICIFSLLFIYSMIAAIIFGFSIKPLSAVYAKEQNQAYIHLESKIPEHFYASIRLKMLENPKLVYLLGQKAHINPKLILAHLASNDPKV\*KIVIEQLITPI\*RAGPNFQYLYGIPNPITKSFVSISAEGIEKLLTGDNTYIHLAIFGIFYSLSSSLMRYYNLITRRLDLPFVSLIFQILVIAFVVGFGVDYQSGTKFAGLLA\*SMPMSISSAVILIFSLFIFTTTYSKFLSTYSYKDNNFENPYPFKWIRHIL\*

>UUR10\_RS03135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 AAA family ATPase

MSTKDLNDAILDLFCLVINNNDF\*KDVILRLEAKDFPEKVQQNIFNTIANLNEQKYKISESNILNGLGNYVIVDEQDQNYLLHKNYLVQILERTDYLVDLKDCIEIIKNASIKNKLDLFANEILSTQISLTNAKDQFKEMHEKFLEILASRTEDTIENMELIANRYFEKLNKIGNSGIIPGVIKTKYDNIDKFTNGYKPGELVVIAARPGIGKTTFCLNVMVNNVNEIIEYNQNIQPNQKEKIIVMFSLEITKEQILQKFISIKTGISNREVIENKYRIAKGYDTRSFAMQAINEIKS\*PIFVDDRPNISIVDIEAKLYDLKKRYDIALVVLDYLQLVSAGNANKNMTRTQEVGRVSSALKVIAKEINAPVIAIAQLSRKAEERDVSSNANMKNNPLVKTIDNSPKLSDLRESGSIEQDADVVAFLH\*DRKQRNAMQNDNQETRMRDDLIEAKFIVEKNRNGSTGETDIIFSKLNSKFIRATTSKE\*

>UUR10\_RS00645 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MKIKKEKDNDINSVSNENENKKINIKDLSKDERKELKKRIKEVEKLNKNHKGDIDMPSRDPNNIIELRDVKKIFTNGYLINETLKGVNLDIRKGEFVIILGPSGSGKTTLMNIMSGLDRATDGDVRVCGKQLINMSQNKLTDFRKEYIGFVFQQYGLLPTLSVEENVEIGADLQVDKKRRIKPQDALKAVGMLEYAKKFPHELSGGQQQRVSIARALAKNPIILFGDEPTGAVDETMSKIILKEFVKVNQELKTTVIIVTHNPIFAELGTLVIKVKDGNINELIRNDHPKSVDELK\*DEQ\*

>UUR10\_RS01055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 amino acid permease

LINNKIKEVKIKKKLEKNKKVSLMGFVLLTASAIIAFYTFPSLSTAG\*IAIIFAFITAMC\*FIPIGIAAAEMATIKGWTEGGIFTWVRNLLGPRNGFIVT\*LQFQVTFGFVAMILFVLSSFSFAFAGADGYNYFNTLKLGTTLNQATSVNFSKNFNNGALYGIGIVVVAGLIFMSLLGQKRTHQFGQVALIIGILLPFFIILGFQIYTVATMPDPLYFIGKHFQKEPHLDPSVTGTSYELNKTFMSSVVMASFMAFSFSLHGVEVSAIAANRMDNPSKKYPQAMMFVVISALVCIIIGSVMISMTVPTSTLSFNGGLVQTIMFNLSVGGIDVKLPDGTVAHYKTLAHAYSVVETQYGTAAANQVMYQFVYGHPINTGSDLARSDLLTLTSEVNDPLKNPSLFISVMNVETNKMAMQGLQAITFFIGIGVFVEVAV\*MSNLSTGLNYAMRKAHFPVWVTYRLKNGSALTVAIL\*IALLMCIFAIYMFGYNSLMQYKGQTISDVLANEIRIDQNQKEPMALLSNQNLDEIKLMARSIYEHSHAPGAQANVLHFDFNKHANSEVNAIYEKIKDYIGINAVASGTPASITNISFISNVVSQISMYYIGYNIFLIGYLRYVFKAN\*LRREFRVK\*P\*LQISLALLAMGVNTFAVVATYLPAAPELYPGQEAYYVFISIALPMFVCTLLLGLFIYLINYA\*NKKRGINLSEHSNLTNVDQNVLDVINN\*HLYKNQKEFAKFERHVQLLQQKQVIVRTTKDKVQRELVANEMQYLAAEIATRFAPEEEH\*

>UUR10\_RS01620 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor 4

MDKKFIRNFSIIAHIDHGKSTLSDRIIEFTNTLSKREMTNQILDSMDIERERGITIKLNAVQIKYHARDNNEYLIHLIDTPGHVDFTYEVSRSLAACEGAILVVDAAQGIEAQTLSNVYLALENNLEIVPTINKIDLPSADPERVKKEIEDVIGLDTSDIPLISAKTGLNIQDVLEAIIKHVPPPLDANDDAKLQALIFDSFYDSYKGVVCLVRIKQGTIKVGDKIRMMANNKDYIVSELGIRTPKIVNKTELVAGEVG\*VAAAIKTVKDINVGDTITHANNPADKPLPGYKKILPMVYCGLYPIDTSQYDDLKEAMAKISLSDAALTYEYETSQALGFGIRCGFLGLLHMDVIRERIAREFNIELILTAPSVIYKIELTNNQEISIDSPAKMPEPTNIKAIKEPFVKLAIITPDNYVGAIMELCQSRRGSYQDLEVIDGTRRRLIYKMPLAEIMYSFFDSLKSITKGYATMDYELIGYQAEKLVKIDIMLNGNKVDALSIIAHRDFAYGKSKIICERLKEVIPKHQFEIPIQASIGSKIIARETIKAVRKDVIAKCYGGDVSRKKKLLEQQKEGKKRLKAIGNVDVPQDAFVKVLSEN\*

>UUR10\_RS00955 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease III

MDNKKFLDFLKQNRIEPKNLSIYLEALTHKSYANEHKLTKNYQRLEFLGDACVEWVISNFIFNYKIKDNEKMRSLDEGEMTRARSNMVRSEILSYAAKDLGLTDFLMIGVGLEQDQSARMEKIYEDIFEAFIGAVAQDQGIKKVSLILEKTLIKYFREGQINYQKDYKTIFQEQAQRINKKPIMYKLVRNEGDKKEVHLV\*NDLIYGIGIASTRKEAEILAAKNAILKLDDYTKKA\*

>UUR10\_RS01060 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKKNHKK\*LLMTTPVLLIGGLSTLALTSCKDEKKSNPKPDKQSTIEEYKLSLSSVETGFNEAKLIFDNNDSFKSLDNFKVILKNIQNTNEVVEANNLSATIENQKLVLKLNNLQDGQTYKIDKILYQTNKEVILSNNQVFTTKTKPKIEYEVQEKILKLDDKTYYVVLKVKDPQNLNEPTKEILKSVTFTSKISNVANLKNAILENQRPYVKEDYSEIQIKLPRVPVISEKIEITANNSLFKSFTITVGEKHIENVEKIIDITKKVFGNQELKSISITKQNSSSANITLSLKLNGNSIIAGANKLINKKDKAIKFSFFVKNKATNTIKEFNFNEKSKPIGSYQFTLNGLDANSDFVIEDIRYDDKSIKITEELLASLSFSTK\*

>UUR10\_RS00635 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 uracil phosphoribosyltransferase

MHKIINHPLIKDKLTRMRKVSTVSTVFRTNLEELTQLMVYEATKDLELNEIEIETPVVKNAKGYKLKNKICLIPILRAGIGMVDGVKSLIPTATIGHIGLYRNEETLKPVEYFKKFPKNISESDVIILDPMLATGGSVVEAVNIIKKYNPKSIKFVCIVAAPEGLEYVQKIHPDVDVYIAALDDKLNENGYITPGLGDAGDRIFGTK\*

>UUR10\_RS02540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase IV subunit B

MANKYDGSAIKILEGLEAVRKRPGMYIGSTSSAGLHHLV\*EIVDNSIDEVMNANAKNISVVLHEDNSISILDDGRGIPVDINPQTKISTVETVLTVLHAGGKFDESAYKTAGGLHGVGSSVVNALSA\*LICEVYRDQKIYQAKFSNGGHIDQPLKVIGTTKKTGTLIHFLPDPLIFKNLFFNPNTIKERLHESTFLIKDLKISFEDKINNKKYEFINDQGLIDFIKFINETKKTFSDVIFFKNTINKIDVEVAFQYSDQNNEIMVSFANSVKTSEGGVHENAFKNALTSVVNNYARKHDLLKEKDKNLEGDDIREGLSSVISLRIPESLISYEGQTKNKLFTPEANEAVKKTIEDNFSF\*LEENKTQALDLVNRAIVARDAKLAAKRAREETKKVKKIKEERGMGGKLTPAQSKDPTLNELFLVEGDSAGGSAKLGRNKKYQAILPLRGKVLNVLKARLVDVLKNEEIASIFTCLGTGIGAEFDLKKLKYHKIIIMTDADTDGSHIQVLLLTLFYRFMRPLIENGNIYIALPPLYKLTNKNTKKFFYA\*DDVELDQLKKEQKNYEIQRYKGLGEMNADQLFETTMDPSKRLLLRVNINDILQAERQINTLMGNDVSIRRQ\*IDNNIDFSVIDELQINNEESK\*

>UUR10\_RS03125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 uracil-DNA glycosylase

MK\*KEFIINQTKQDYLRNIIQKVNTIENHQVVYPLKKQRFRCFNFFDIEQTKVVILGQDPYHTPKMANGLCFSVDLGNNLPGSLVNIFKALEYDLQIKRTNPDLSD\*AKQGVLLLNTVLTVNAHQANSHKDFGYDQLIKNAFIELKKQKHVVYLL\*GKQAMSYIDLIDKDHNLILCAPHPSPLSAHRGFLTCKHFSACNDYLIKHFRTPIKW\*

>UUR10\_RS03220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKTKSNLRTRLIAFISTILATIVISLVLITSCSTTNTKKPTISQDTQIKFKSITNNSINLANEKQILNQAQDSETKVFFNLYESLKIYFEQTIKRSLYLYYSYNFALLNLYNAKYHVQLNDFSLIYNRNQNPNDTSFDVNYQVSLVVDDLGDINIKTKPQFYEPIPPDQKVKNEDYRFTKKIKNFWFGSKKAILDYFNQAISMRINYSNVKIYRSIVKYPDSKDHYEGYTMTSGSFYR\*FKQAMSIDDDQNKVRYMINEISDLNVDDDVKLFNLNEAILKQTFVIDRPPKIPIKPERDLVYANI\*NNSLNDFNFSPIAFLAPTFIKKDAQKLTPLDLKTNKEYLNDLYTKVLVEGQKNNNALIKGKYVIYNMYDYFDLTLEPEKPGGVHHCHADGYCH\*

>UUR10\_RS02875 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 leucyl aminopeptidase

MTLNEKKEFVYELKAVKKDHNLKGFEKNTAEHVVFGEVYQKQHYLILTPDFDSNELSRSLVSFLEKSPKPVSVDLNSFLDLVPESRHASLLNVVVSALEYVEVTPFSLKSKVEPKNIHNLVVDAKYHDLIAKLQVIAQSQTITRTLQDTPANLMTPGDFEERIKELFKDLPEVKVSVLYRKDLEAKGMNAHVGVGKAAVSDKAQPRLVVVEYNNNPDTDEKYAFVGKGVCFDSGGYNVKTGSHMR\*MKFDMSGSAIVSMTVRALALNKEKVNVVAVCPLVLNLLAPEGQKPDDIIKSYNGKTIELDNTDAEGRLILADALTYAVRDLKASKLFDIATLTGAMIFALGDTYSGV\*ATNNDI\*NEVVVAADYAGELV\*RLPFHNDFLKMLNSNVADIANSVTDPRGGSSRAACFLKEFTEGVPYAHFDIAITADVGHKGTGVMLRTFYRIAQNQKFN\*

>UUR10\_RS02905 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome recycling factor

MNFKIYETKIREEFELVLK\*MHNEFIKLRTGRATPAILDGILVDYYGSMTPINQLANISVPEPRVLAIKPYDRSSIKDVASAINASNLGVNPQVDVDIIRLTFAAPTEEVRKNLAKKAKQVGEEAKIRVRHIRQEAQDLFKKNSSTVEDDKKFFQTELDNLTKELNKEIEAVVSHKEKDIMTV\*

>UUR10\_RS02235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 methionine adenosyltransferase

MQYKKIITSESVGAGHPDKICDQISDAILDECLSQDQNSRVACEVLACNRLIVIAGEITTHAYVDVVKTA\*EIIKPLGYDENDFTIISNVNKQSVDIAQSVDKTNKNLIGAGDQGIVFGYACDETPQYMPLTSVLAHELLKEIERQRRSKEFIKIQADMKSQVSIDYSNSTPLIETMLVSIQHDEDYDVEYFNKKVSAIMEQIAKKYNLNTNFKKIINSSGRFVIGGPIGDTGLTGRKIIVDTYGGVGHHGGGAFSGKDPTKVDRSASYFAR\*IAKNVVAAKLAKQCEIQLAFAIGQPQPVAMYVNTFNTNLIDETKIFEAIKKSFNFDIKTFINDLNL\*TTKYLPVATYGHFGRDDLDLS\*EKLNKVEDLIKNSK\*

>UUR10\_RS00485 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YbaB/EbfC family nucleoid-associated protein

MDFQKLAQELKKMQNTLSKKQKEFEEKVFDFDYKGYVLIKIKGNLTIESIEVKTEIVDPEDKETLQDILRAAVNEAISKTCKERDAIMNSTIPKGTGFF\*

>UUR10\_RS01205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 type I methionyl aminopeptidase

MVIVKTEKDITAIKEAVRI\*KIAREAIYEQVKAGVSLKELDLLAKEVIEANGGIAAFHNYLGFKGHICISVNECVIHGVPTDYILKDGDKVTFDVGVKYDNHYCDAAFTIIINNSNVEALKMSDICKKSIDEAVAIIKPKVTTHAISNVIQKFIEKNGYFILRDFAGHGCGNEIHEDPLIPNYRSLLYRNVTLEENMVICIEPMILSGSNAYYIDPNDQ\*SVKSKNHQMTCH\*EHMILITKDGCEVLTA\*

>UUR10\_RS00690 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKIIGSAFLGIVFCILLAFAIIFGIEIDYYHQGDYLKYLNFLDKLHQYNKIDNLFEYSNHYESALIGVIVLTIICFLIFITPIIIIAIAKVKKKKVINKNI\*

>UUR10\_RS02565 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MIYKEIVRNIIKHPLILPEGKHYHLHKILTSKDELRKGEVSLVAENGKEYTVDLSAFVDLLVDGDCIIDDNHSLVALYFDESK\*

>UUR10\_RS01370 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HU family DNA-binding protein

MSEKIKAKTRVQMIDELSKMLNIDKKQTKTFMDTYEAFLILELSRAKEVRFGNIGKFKVTVRAERKGINPKTGETVIIPEKTIPKFTFTKGIKEIINAGISVEDETVFLDDNDYEDDGDEFVEEYIAPESN\*

>UUR10\_RS03415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 class II fructose-1,6-bisphosphate aldolase

MFSLVNAKKMVQNAYKNHYAIAAININNLE\*IKAALLAAQETNSPLLLATSEGAVKYMGGYDNCYAMVVNLMKQMNIKTPVCLHLDHGTYEGCIKAIDAGYSSIMYDGSKISIQENIENTKKLLAIAKSKNVSVEVEVGSIGGTEDGITSEGELANVNDCYQMCLLDIDMLACGIGNIHGLYPEN\*KGLNFDLLKEINIKVNKPIVLHGGSGISEEQILKAISLGVAKININTECQIAFSNALQDHLIKAGDLVAAKQYDPRKVLAYGVDAIKNTIIEKFTKFNSLNKA\*

>UUR10\_RS03055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L33

MAIKRGVRLQCNESKSINYITTKNAKNNPDKLSLNKFCPKCRKVTTHVEIKKK\*

>UUR10\_RS00425 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase (ATP-hydrolyzing) subunit B

MNDSNKENKYTAESIKVLEGLEAVRKRPGMYIGSTQSEGLHHMI\*EIVDNSIDEAMGGFATVVKVIIKKDGVIRVEDDGRGIPVGIHEKTGLSGVETVLTVLHAGGKFDNDSYKVSGGLHGVGASVVNALSKNFKV\*VNKNYVQHYVEFINGGHAIEPLKIINDKDIKEKGTTIEFIPDFEIMEENE\*DELKIMARLKQLAYLNKGVNIEFESEMTNRKEK\*HYEGGLKEYIADLNAEKEPLFDAIVYGEEEKEVKVPGHNDQTYNIKCEVAFQYNNSYNNSTHSFCNNINTTEGGTHEEGFKLAITRLLNKYAIDKKYLKDTDDKITKEDVSEGLTAIISIKHPNPQYEGQTKKKLGNSEVRPYVNEITSIIFEKFLNENPEESKKIVAKVMQAAEARRRSHEAREATRRKSPFESNSLPGKLADCSNRDSSVTEIYIVEGDSAGGSAKTGREREFQAILPLRGKIINVEKAKIDKIFANEEIQNMITAFGAGIGPEFNIEKLRYSKIIIMTDADVDGSHIRILLLTFFYRYMLPLIQNGNVYIAQPPLYKVSYGKTIKYAYSDQELEKIKSTLLNTKYNIQRYKGLGEMNPDQL\*ETTMDPKNRLLLKVNIEDAAIADKTFSLLMGDDVTPRKEFIEKNAKYVKNIDA\*

>UUR10\_RS01400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 peptide-methionine (S)-S-oxide reductase MsrA

MVKSI\*VAGGCF\*GIQKYFDSIKGVRHTIVGYSQGNVINPSYEQVCTQTTNHTETVQVDYDDRFVSLTSILEHLYQIIDPFSLNKQGEDIGNQYRSGIYYVDHEDALIIKNFLLQKQNQTSKKIMIEVHKLHNFNIAEEYHQKYLDKNPNGYCHVNLSLSKKRFN\*

>UUR10\_RS00260 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF2714 domain-containing protein

MKKNRSNLTPTTNYFDVFNTYKEKKASVDLITYEELMASVLFDNKLGFESEVYLDFVKKFTLAFEKKLDI\*FENFIINFNLNLKFSTTIMIPILVTKANSTTDAINFRNDQNPVYNNFLISYNQKIKKLLLQNHPVQILPHLILFKSNLNGSLVLVFSEKIIASIEQKSGN\*

>UUR10\_RS00640 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tyrosine--tRNA ligase

MHNLIKDLKARNLINNITNEEKLKKALAENKGIYVGFDPSADSLHLGNYIMIMLLKRFRLHNIKTFALVGGATGMIGDPSGKSAERNLLDKTILEHNITKIKYQLEKFTNSQVINNYDFYKNMTFLDFLRDVGKLININYLLEKEIISSRLDVGISYTEFSYNLLQGYDFLQLYKNDNIAIQAGGSDQ\*GNITTGIEIIRKSLGDDNIACGLTINLLTNSEGKKFGKSEKGAIYLDENKSSVYEMYQFLINQTDADVEKLLNFLTLIDVDEINKIMQAHKENPALRIAQKALAQAVVVDVHGQQKYEQALHISQVLFNGNINELNQEEFNIAIKSLPTTKLDKDEIKIIDLLNLANISSSNRVARDFLSTGSILVNDIKVNDENFLVKKQDAINQEFSIIKKGKRNYFLIV\*NKD\*

>UUR10\_RS01695 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 molecular chaperone DnaK

MTKEIILGIDLGTTNSCVAVIENKKPIVLENPEGKRTVPSVVSFNGDEVLVGDAAKRKQITNPNTVSSIKRLMGTKEKVTILNKEYTPEEISAKILSYIKDYAEKKLGTKINKAVITVPAYFDDAQRQATKNAGIIAGLTVERIINEPTAAALAYGIDKLDKEQKILVFDLGGGTFDVSVLDMADGTFEVLSTSGDNHLGGDD\*DQVIIN\*LLKSIADEFNIDLSKNKMAMQRLKDAAEKAKIELSGVNTTTISLPFIAMDSSGQPINFEKELNRATFDNLTKNLIERLKKPVLDAMKESKLSLADIDQVLMVGGSTRMPAVQNLVKELTGKEPNHSLNPDEVVAIGAAIQGGVLAGEIDDILLLDVTPLTLSIETMGGVATPLIPRNTKIPVSKSQVFSTAADNQPSVDIRIVQGERSLAADNKLLGNFELSGIEPAPRGVPQIEIKFNIDANGIMSVNAKDLKTQKETSITIKDSQGLSQEEIDKMIKEAEENKEKDAKVKHERELVNRADSLINQLEQVVKTENVPQEQKDAFNKQIEELTNARDAQDYTKLEAEVKKVEDLLANAAKFAQQTQQQDPNNQKDDVTEATVTDDSTKK\*

>UUR10\_RS02220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF5378 family protein

LSTNYFLIAITILTIICIGLGNFFIKPVQTQKIN\*\*T\*NHFINTK\*IINILISISFLIYFCCLR\*APGAKDFFSNEMEIIKTLNDKYANYINSYEASITFSRTFLLD\*CPCFSVLISIVAIFDKKQIIVNYLGFLCFCFGLLTIVGGLVGDEAIG\*ENLINYVFIGKSPNTIYFALHFYLCVFGFYLFVNTRKTIKIYWIYIIIHTILIGYIIYVNVMIVIFNVKNNASGFSFGD\*YSPVYAQYSTVAQVLQLDYRLNALVMCLFMYAIFVVGYLIRYYLQKVYINKYNIKYSQEGSYFAYVKNHR\*

>UUR10\_RS02325 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease accessory protein UreG

MKRPLIIGVGGPVGAGKTMLIERLTRYLSTKGYSMAAITNDIYTKEDARILLNTSVLPADRIAGVETGGCPHTAIREDASMNFAAIDEMCDKHPDLQLLFLESGGDNLSATFSPDLVDFSIYIIDVAQGEKIPRKGGQGMIKSDLFIINKVDLAPYVGANVEVMKADTLKSRGNKDFFVTNLKTDEGLKSVAD\*VEKRLQLALLEE\*

>UUR10\_RS02395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SUF system NifU family Fe-S cluster assembly protein

MASYNINDNLTLRSIIMEHYERPKNKVCFVQNETDYLSCHNTTEGCSDDITVYVKLVNQKIVDVVFLGTGCAISTSSTDIICELVKNQDLQQALELINNYLNMIQGLEYNQDIMQELIAFHNVKNQMNRIRCARIGINALKTCLEQYKQ\*

>UUR10\_RS00080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 BMP family protein

MKKSKINKKILFASFAGVATLASVAAIAASCNDSNKNNGGTSQDGNYVSKLVLENFYSKPAGDIGDNPGYHRTYNSLYDDGARMLGLISFSHSGPIAEYFKSSNAKKDLSAVLIDDKFSGNEGKDRIASVSYRVDQAAFLTGIAAAYYLNANQETFGKDGKLT\*GGYVGLHFTSTSTFIQGFKFGVQ\*ANEKLKDKNINQEDANGTNKK\*MNVEQVFANKYVAGSFKPDEEGATNIINDLITKKADVILPVAGPQTNIATSIVSNATDPSVIIGVDTAQELDDVTNRKRITNKTVNDGKTILFSIVKRVDLAMKGAIENASKGAQLTDDITKDAYKLGTHTEASLDKSTYVDDTPLVELSNAGRVYLEQAAKLAGLKAITYAQIVDAIQNEDLFKLLSQKGTTTLENVATKTNDG\*TLKNEYSNKPFTELQKLLGGEVYINKLDKKLYPYSLTGSSYLEEDKTKRSASQEFKKA\*DAATTPEAKEKLAKVVLGQNNAVIKDKSFSESAYNGLAAFYKSKKIIIPKI\*

>UUR10\_RS00970 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MLKKTKFDSQLVKSLITSSILKVPGIFSVDISDKLSDFNQNRFVIKISLHEDVVNVLSVANEARNLVYYELSKQLNDDSVVINIIINC\*

>UUR10\_RS01030 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ammonium transporter

VSTITTTS\*GIDPNIYFSKHELT\*VPATADANTLALAHFNPTSTLLVALAIAFVLLMTPGLALFYGGLTRRKSTLTIINQCVASLGVTTLI\*IFGGFSLAFGPSVGKGIIGDISTYFAFRNLLFADG\*SGDAGIVFANFTNGVPLILFFAYQLAFAIITPPLMVGAFADRMKFKNYLVFLVL\*QYLIYIPFAH\*I\*GQGFLAAAGVIDFAGGIVIHTSAGFGALAASLVLGKRVLLKNDKSRPNNIPMTILGATLLFFG\*FGFNVGGSGFVSGGNAAV\*SLATSA\*ISTIIALAIGMIG\*AILETIFNKNHKPTGVGLVTGAIAGLATITPAAGYVPI\*ASVPIGVAAVLVCYASAKTLHHFHKIDDTLEV\*GVHGMGGVTGSLLIGAFASKSVNPSIMYEAIGPETTGILFGVQLGAMLLAAVYAFVFTILLVYITRPRLSARQQLGHIDYINHGEDAYAFDIEIPSEKEMEQYELADSS\*HSSTGVKHPLVKKANLQAGESTSSH\*

>UUR10\_RS03150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 single-stranded DNA-binding protein

MNKVILIGNLVRDPEARQIPSGRLVTNFTVAVNDNIPNANANFIRCVA\*NNQANFLTTYLKKGDAIAIEGRIVSRSYVDNNGKTNYVTEVYADQVQSLSRRNQNANDHNNDKVNVDTMMGAYASINTDAAFSSNQPQTNFQSTTSNSNKNDDEEDEITS\*INLDDDLE\*

>UUR10\_RS03305 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L13

MQKSSMLKKEAAIARRQ\*YLVDATDLVLGRLSVKVADILRGKNKVDYTPNVDAGDYVIIVNSDKVVLTGQKALREN\*YNHSHYIGGLRTRSGEEMISKYSDELIRRSVKGMLPKNKLSKQILNKLFIYKNDKHSHEAQQPTILELKLK\*

>UUR10\_RS02085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome biogenesis GTPase Der

MRTIAIVGKPNVGKSSLFNRILMRRKSIVDDQPGVTRDRIYDVGN\*LTRDFMLIDTGGIISSEDTYQDNINEQVLFAINEANTIIFLVSAKDGINNDDKKIAKMLKEKAKDKKVILVVNKVESEKYYFNEGELYSFGFGKFFKISAEHGIGMGDLLDELVKDMPIQNALDQQERFKFCIIGRPNVGKSSLTNTILGEQRMIVNAEAGSTRDSIDNDFSYHNKKYTIIDTAGVRRKGKIVEAVEKYAVLRTQKAIERSQLILLVLDGSEPFKEQDEVVGGLAYDANIPTIIVVNK\*DNIVNKNSHTMEMVKKQIRSQFKYLS\*APIVFISALDNKRIHTIFETIELVREQAMRKVATSLLNDVVIKANAFQEPPPFKGGRISISYVVQVQSQIPTFVLKCNNPKFLHFSYARYIENEIRKAFGFDSVPITLY\*QDKNKKLRGE\*

>UUR10\_RS02545 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase IV subunit A

MSVNQQKIINTPLDNIVGESYAKYAKYIIQDRALPDIRDGLKPVQRRILYAMSELGIFHDKPYKKSARTVGEVIGKYHPHGDSSIYEAMVRMSQD\*KNNLCLLDMHGNKGSIDGDNAAAMRYTETRLSKIASVMLTNLKKDVVKFSPNFDDSEKEPSILPSLFPNLLINGATGIASGYATSIPPHNPNEVFDALIYRIDHPDCSIEKLIKICPAPDFPTGGEIHDLNGCANAHKTGEGKFVIRASIEFKTSEAKINQIIINSIPYETNKALIIKEIEDIIYNKEVAGLIEVRDESDAKGVSIIIDTKKDVNLENVKNYLYKKTSLEISYNTKFIAIVHRTPTLVSLSTYLDAQINHSLDVINKVDLYDLNKVLLRIEIVEGLIKCVDLIDEIIKIIRASDSRQDAKNALIQTFAFTNNQAEAIIMMRLHNLTRTDIFDLRNE\*ESLQQQAKTLKERIKSLQVRKNYLKQKMIEFKKEFGYQRKTKLFDEFIKAEVNEDQMIEKQSLNLVISRDGYIKTVSKKSFESSKYDELGLKTNDLLFYHNVINSHDRILIITSKAKLINLIAHKISCMR\*KDVGEHLNNYAKFDANEKVVAVYVCNEQFKVDEHQLVLGSKLNLIKRIELNELDLNKNSKQISIMKLNENDGLISANLIKKDHNQFVVAISKLGLVLMFLVHEINCLNRLAKGIKIMKLKPNDEISSILIVPNNGYSIQLFLDQGNKCFSISELKLSKRAMTPSPLYLPTKKAQSVLAAFLVGNENVFYLLDEQQKINPYYLPNLKPIKLDSKINKYENDLIITDVVKDSFLSDSVISDFKKISMYANEFDSELLKTNENQEQDDLQLELINEKEEND\*

>UUR10\_RS03005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S12

MPTIAQLIRNKRAPKVKKTKSPALLFTYNSLHKKTTKNPSPLKSGVCTRVGTMTPKKPNSALRKYAKVRLSNGFEVLAYIPGEGHNLQEHSVVVIRGGRVKDLPGVRYHIVRGAGDASGVEKRRQQRSLYGAKRPKKEASK\*

>UUR10\_RS01280 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YihA family ribosome biogenesis GTP-binding protein

MAKFIKSAQYFDQYPVDKQFEICVIGRSNVGKSSLINALANEKIARTSNTPGRTQLVNFFDFNSFRLVDLPGYGFARVSKDKQLDLATIIDQYLGYRQNLCAVFQICDINVLTNDDVEMSRYFENQNYAHFVVLNKVDKVNKSHFDNNKQKIAKFLNISVDRLLCVSAQKNTNVATLFALMKKVVIETRQKQLLLKKEEKKSSEEEIK\*

>UUR10\_RS01815 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKNKYFRKSKFWLLIPISFISLGSITLVATACVKKNFYPNTFADDQIYITKNNEKTVKFRISRNDEENKKYFKDDLK\*NTFINKLKKTYINVETVIPKENAKQNIKQQDLCMRALPVQVLSNNKYVDIYVKIPVLLANTKMLVVGDDLLKSFYFDTDNLIMNAKHFQPIPIKML\*

>UUR10\_RS01830 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase

MAKLNFKKNILTSPFFRNIPNIITIFRIFLALICIILLLVDFYTKNLNIVYEVLDANISALRLSATTIFIIAAFSDFLDGYIARKYNLVSNLGKILDPISDKILVNGVLICLTLDHTALAYLTIINILRDIFIDGLRMFASSKKIIIPANIFGKIKSILLFISICFILFLLSLTSS\*KNVYLFNIPLFFATSLSIVSAIIYYIDFYKGVKKRGSITKS\*

>UUR10\_RS01430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YebC/PmpR family DNA-binding transcriptional regulator

MPRKHLIASGINKKQQQQAKI\*MKCAKEIKAAAKMGGPNPEANPRLKVAIERALNNNLSRDSIERNINGASKDADNLKELTYEGYGPNGLAIIVRALTDNEQRTISAVRGYFSKLQGQIAKPNSVSMLFNEYGQLLIDKKTKTLDEWFELLVDQDIVDINEDDEIIEILVQPKDFSATKLILENNNANIQSAEIKLIPTDFISLDDHARERLVRFVNACENDDDIS\*VITNYEEEL\*

>UUR10\_RS00220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSSLPVIILVIGIFGSIFLVIGYIPQVIKVIKTKRTDGISLTFLISLNIACFLFVIYSILVMIFNKHNGIPTALPLCLANTIVGILGLVILIYKVKNIKKAKLYLMDEKTYYEKYVLNNL\*

>UUR10\_RS03490 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MYSRLLSNILFVGFHTNHNTNEKTTHIAIT\*AINTHTFGKSVLMISAGFNSGISPVHEANIGMNITDKERTDSVATKCFLFNFITLLP\*

>UUR10\_RS00810 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Spx/MgsR family RNA polymerase-binding regulatory protein

MIYVLYSPNCAVCKKVVRFFRNNQIEITKIIIGEDKIERSMLIDILSLCEDGFGTIISFKTESSKRLNITSKTFLDLSTKELLNLIQEDLNLIRRPLIYQTKNNKPYRLQIGYDSEEIEIFKRVVHEGR\*

>UUR10\_RS01190 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L15

MQLHNLEYKKGSRNHKEKRVGRGHGSGLGKTSGRGQDGQKARKSGMVRLAFEGGQTPLYRRVPKVGFNNDRFANKYNVVTLISLVKYETKELTAEFMYVNKIAKNEDLPIKVIGNAVLPSGTVVSAHKFSKGALESISNSKAKAQILE\*

>UUR10\_RS00405 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA lysidine(34) synthetase TilS

LTKL\*TNLINKITNKKYLAAVSGGPDSMAMLNMYKRNISVVCHVNYHKRESADRDQEIVVDFCKKNNLPIEILDVDEKVYEKYAHIDNFQAKARLIRYDFFKEIGKKYNIQHLYIAHNFDDFLETAYMQRARQSKALFYGIKESNVVNGMIVKRPVLFIRKQTLQRYCDENKIKYGIDETNELDIYERNRVRKTISN\*SLNEVYDFKKAVLKYNKEHSSFANFVELSYIEFKKNKYRYDYFVRQDDGVQYYLIYYFLIDQKISNPNENKIISLIKFFGKQINKEKAYRVQENLYMHVNEDDLISLISYDKNDVIDDPNIIEKQAGN\*

>UUR10\_RS02095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 division/cell wall cluster transcriptional repressor MraZ

MFIGTYNHSIDSKNRMLIPSKVKATLNEVTFVYLSLGFDENIDMRLESEFNQFVDNINNLPIGSREARNLTRLLLSQTYKVEIDSASRILIPQNLIDKAKIKKDIYIIGTNDRYEI\*AKEVYDDFSLNQEDTLSDLAEKLLINGI\*

>UUR10\_RS03190 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 PDxFFG protein

MKKRLNLSAKIAIAFASVGAFAGAVVGFMKLYAVSTGGLGRQILQVNSSFDTRIPNRQVNRALLMNQFGKPVAEYDFKAKKGNNTPVTLLVDFGKYKEGQKISYIEFLDTFISLNNNNLPNLKLEVGPIVFSNNYINSVSPDEFIEFTN\*FFTNVS\*GPDLLTLKEFKLSRGIQQNGNSITLGLHSGTREKTTIEFFPDAFFGSLPIYNINAGAGNAYDSLARQLNQDGMILEELEKYHQKIPLMIASHNSHSFGGIKLVNALKEAKNTY\*FNADKYFDLTKDPLNFAGLKGVKAKDRTLNYLFYAENEQQAKQKVQAYLNELQFVKGLIPKDKKFNPSIDVKADEIKKIEIKEFLELGGALPSFPGGSVDLESLGGNSVGQKTLLIDALVNNQKQKIKYHVFEDEFISRANKSNDSEFIQNDRSILASSLREIITKNFNNYISQKQNFRNVYDTDETFVGKSFYIYDANGNGKNPRFYKTKESLLQSELVNYDEKKVSLVTIDKTKVEGPNKLVLTTKDKKEIVLESPANNPKGYKYDTSFDDAFNTLKVAANYFDTFTPRLIKQGSKFINGKIVKTYTIFVDAYSGLLDKVLNKNRHLLQKINGIHTEVVQNKDGKNTYKVVNGEYEGIYATDRIPYLSLVAESDPAFKTTGINYLKYVSTHEYGHHQTLQDMKDISDSDESVVGGGIDSRSGVSDESYVNGQALQDYLNARSSGITFRKTDVNYQPTKTGSFLNFSLNNDPKNPI\*ETEKDIFGSATADDPKAFFNNKKRRFLQKFDELQEAAKLRNVKPYDLFIMNSFDHESATVNPSFSSEMKDPSRLKAEYFFYNNQENQNQKNDKFNFGSVVEQPGLLRYKGILKDGMGTPIEFDKKTGNPIIYKLKDSKKPITKDKVEILVKTKNNTPVIDLSTCLNKNGTVNLTKLKRQANQIINSINSLIVKNYYNGG\*DESGNFETSMFNFQTYINHPLFTSTEKRK\*AERITNAMFKHPDFNISKSLKLPEKTNSTSTSVPYYKKVLSQIIGQDVTNKDFNGFKRVLLDASYKTSKLLDNKTDEELKALDPELLEIKKYYNKQLDR\*TVKDANVVAQTTMFNYFDSGIEGNNGYKYYVKPKDRELYRTILNTKTKESFESIIGIRPSYLTQNKITTYEQLFNNFMINLNQIGTIALVVNKSNGEGKPQKTLDQLTEKEIYPLMILTEAEAKAINFNYLKSNNGAFTTVILDGNNGQKFYTIKFKDIPSLIEFMSIDPSKYTIVENALSKNHENVRK\*DYDYLKERYDVDKFFNEVVKKQEAYKDITLEQFKENLTGLLFDGFTESHDIFKFYKSKDFKATELDKYKQVFDGKLGLYGFRSFGNKFDKPASPYGEPIDRYNFAGNPQNV\*KAKPNQKNVRTVDSIVKGIQVEIERKHRQNNTLNFGQLLQYAFGFTIYTDKPGGSIKDIYGQLGSFFGISQSSEIPNEDGTVVS\*DYVAINKKRVQEKLNEIFGDYVFNIAEVLTRDYVQTVFVPSQQELDNLPNYLSGLSDFNTGNEYVFSGDNTKQ\*NERLIPVNNFLSADSNTIASNVVFATNDYEKIQSVLANQASNVYKKNQQLFDNYATKPEDLEENFAKVKNSLLSDNNFLTLSKTHDNDILNDLKSYSSLTRLSADANSYIGKTRLTNNGFFKDR\*LRKIID\*QIYDDNRESVKDDHLNILELDNKTKVKDRARAM\*LYMLRSKGIGDRTLAQIYRNKEKDSILMYGFIKKEYKDKVKKIAIKNKNNGHISYIDVHTNNTNNLFYLKRQSDISSK\*TLEDEGYVS\*TTDYAILSNFTNQLIGYDSVNAKGSEFELYFVDENLKEVMDLSDPSKPKSLMNLGSRKYVAENGKSYSISPVYARNENTPTQNRTIIRISNQFSV\*

>UUR10\_RS03330 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecE

MANEKKQKTNKYLTYQDQEYERNLLLEKERKQQKKLLAQQTYRELNLHKSLIKKAKDDQKLILKLLKENKLISKTQFNAHRLELKNAINEMIDEHYQLLDKYSVDFEKLSFKLKR\*FYGIGKEIRRTS\*ASKRSVLVSLIIVIIIVLILAAIFFGIDSGFYKLSAK\*

>UUR10\_RS00385 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-binding protein WhiA

MQKSTLQEIIDKDLNKFTFSEFVKEDIYTNTDYSSTDYKVILYSFFRNNLTIKIGQKLT\*ILKSQNLQIIEFILNGLEHFNNLNLEYEIIVEPDHLNKTRTNYSLAL\*GDLDKLDEILKLFDNENDENFHKDRYCSNFLIGAMLSGGSIAHPLENYHLEIRCDSNNYITLLTKALSRYGLEYKIVYRNKKTIIYFKKSETISDFLKAIRTQNSLFEFENIRIQRDFNNQQQRLNNLDISNLSKSSKAGVLAKEMILEIKKNHEDFSKQSDKFLKYCELRIQNPDCSLNELAYLLKQTFNIEISKSGLNHFNSRIKQMYEELILKNERKN\*

>UUR10\_RS00935 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 heavy-metal-associated domain-containing protein

MTYMLLTSSDLHCGSCSSNLYNVLEKIGAQNISVNILNSEFAFEFEENKIADQDVIKEINKNGFKTNILEKYTY\*

>UUR10\_RS02835 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNTKEITQAFLYKSKLFRIQYLFLDV\*DEKQYLKIDVIEDLRFINK\*NINKIKALNHKTKEGDENAC\*

>UUR10\_RS02995 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor G

MSKELKLFRNFGIMAHIDAGKTTTSERILYHTGKNHKIGETHDGAATMD\*MAQEKERGITITSAATYAK\*KGHSLNLIDTPGHVDFTVEVERSLRVLDGAVAVLDGQNGVEPQTETV\*RQATKYNVPRIVFVNKMDKTGADFYYSIETMKNRLGVKATAIQIPIGAEADFVGSIDLIEMKAYIYDGQADEEYKIEDIPADYVTKAQVMRSQMIDDVAIFDDEVMEKYLSGEELSHEDIKKCIRKGVISTELYPVLCGTAFKNKGVKKLLDAVVDFLPSPIDVPPIKGVDDHGNPIEYHNDPSEPFAALAFKVATDPFVGRLTYIRVYSGKLDKGTYVYNATKDKKERISRLVKMHSNNRDEIDSISAGDICAVIGLKDTTTGDTICDEKKPVILEQMVFAEPVISLSVEPKTKADQEKMSLALSKLAEEDPTFRTYTNEETGQTIIAGMGELHLDVLVDRMRREFNVQVNVGAPQVSYRETFTEIADAEGKYIKQSGGRGQYGHV\*IKFEPNHDKGFEFVDNIVGGKVPKEYIKEVENGLIEALTSGPIAGYQTIDVKATIFDGSYHDVDSSGMAYKIAASLAFKEAAKVCKPVLLEPIMSVDVTTPDDYFGTVMGDISKRRGVIEGQEQRGNAQAIKAKVPLSEMFGYATDLRSNTQGRGQYIMQFSHYAQAPKSVTEEVMAARAKK\*

>UUR10\_RS02355 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MSFFKKKNDTEKEEHKHVSVVDMDEILGYEDGEEFKDDEIDSNEAIFQLNNVSLGYGKKMIIKNLTATIHRNDFIVVLGPNGSGKSTLIKGLCRINNPSSGYIKYRDKLISRP\*LPLL\*LEKA\*ASIVNVFTKDRKEVIKTID\*HIKNYKKIHAYKSKELALNLAYVPQLAVFPEATSIYDFVKMGRFPSSNALGINTNTEREKQIIDEALKNVGIYEFRHKNLEDLSGGQKQKALIALALAQDTETIVLDEPTNHLDIRSQLEIIELLHKLHHEMKKTIVLVIHDINNGLKYAHKVMIMKNGEMVRYGKLKETIDHEILLDVFGVESIIVKNESKYPQVSVTDFSLPKDYKINEVQENERTNLIYNDGEENELEKEVSKKKN\*

>UUR10\_RS01775 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 riboflavin biosynthesis protein RibF

MIIEITSTNIQQIRDQYFINELVIGFFDGIHLGHMNLLSDPNNQTILTFKNIPRKIKKLYDFNERIQQLEDLGFKRIFIYDIDQNNLSGEEFIDQILKPLTPKKIIVGANFTYGNNFCNASSLKQYFNVEIKIITNDVSTTKIKELIINKQVEIANKLLIKPYYRVGNVVRGDQIARNIGFNTANILCDNNLIDIAEGVYKAQVIFNNKKYDSVVYLGIPKTINTRSFSMIEAHILDFNQNIYDERIKIVFLKYLAPNLKFNNIDELITAIKNYIKLVLDKTN\*

>UUR10\_RS03205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MAKFGQYLKEKSKSLASSFVDELASDAPNKFLQPFQHQQ\*KIIGHLIEFRDNTYMGGRPRPFREFANRYGRSFSGLIGLAIIIILFILAIIIPFTTGSPTELRPNQRYLDYFTDGFIFGTDNNGRDL\*AML\*\*GLRYSLGIAIIVTAIELVVGVTLGILMGYFEMFDKIMTFIIKILTNVPTIIILMILTIILKPSFGVMIFAISFSGWITMANQMRSQVKRARSFL\*VAASKTLGTKA\*RII\*NFLPILVPMMITQLVFSIPGAILAESSLAFIGLSLPNTPTLGNLIADGSSIITLYPRFTLIPSFLLVCLVASIQLVGGATQDALRRQR\*

>UUR10\_RS03335 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusG

MAYKIKDLDSKLLSDLKIDLNHTHQ\*YIVTVVSGNEQKVIENIKDKLNGYGYGDKLSDLKIIKEKIKEVKIYEPSEAPRSMKNRANTK\*ETIVVDGVTKYRCTKIKEGNKFNGYIFLKAEMTDQI\*FLIRNTQMVTGLVGSSGKNVKPIPVPEDKILKLIADNDAKRALVSLDEQTNSQQNVVVVESHETEDLPNFEVDQQVKIVADTFFGEIARIAKIDQNKKVATVEFEFFGRINTLDLNFNDIQPYDEEAELEN\*

>UUR10\_RS00650 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecA

MNLISKISPQNRILNHARLIAEEVLKKEDEYTHFSDQELINKSDDIIEYLANNNPLDDRLVESLCIIREVIYRVHNKRAFKVQLIGAIIVYFGDFAEMMTGEGKTLTLVLVAYLNALYKKGVHMVTVNEYLVKVGAEFATPALNFLNMSVGQITANMNEYEKRNNYDCDITYTTNSELGFDYLRDNMVTNYNSKVQRGL\*FAIVDEGDSVLIDEARTPLIISGEPQEEIGNYVKADRFVKTLYPQDFTLDPESQSVALTESGVEKAQKFFNTKNYYNFENSDIIHKVTNALRANFTFFNGREYIVKKDDEGEDVIALVDQSTGRIMEGRSYSAGLQQAIQAKEQIKIEPENLTVATITYQSLFRLYKKLAAVSGTAITEVEEFLNIYNMVVVTIPTNKPIRRIDHPDYVFDNKRTK\*KYVIADVIRRHENGQPILIGTASVEDSEILHQLLERVNIPHEVLNAKNHAREAEIVARAGEYKAVTIATNMAGRGTDIKLSPESLEAGGLCVIGTERSDSRRIDNQLRGRAGRQGDIGESRFFISMEDTLFSRFATDNLAKADDKLSEDVISTKFFTRLLNNTQKKVESLNYDTRKNLIDYDHVLSNQRELIYKQRDKILVSSDNKDILYRMLDSVIDDIIYQSHNEPNEDIIDVKKLIDLATQNIFYDNYLNHDEYYGLDLDEIKTKLKNDCISFFEQKEQLMTPGIFNQILSEIMISNIDEE\*TKHLDVTSKIREGVNLRAYEQKAPLNIYVEDSDKLFEKLKHDVA\*KTVCSIGKINYVHQEYDKVNNEFIINDNEIIDNDNVIDFENTDHSLISEQEIEDSLVNIDELNDQNTKNENND\*

>UUR10\_RS00990 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L27

MNKLY\*LTDLQLFASKKGVDSSKNGRDSNPKYLGAKLGDGQSTKAGQIIYRQRGNKIYPGLNVGQGKDHTLFAKTAGVVKYTKFMGDKTKVSVLPKEDNK\*

>UUR10\_RS01460 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (uracil(1498)-N(3))-methyltransferase

MQRYFVSKIKDKKVYFYDSDVHHIKNVMRMRLHDEIIVINETQAFIAEIINLEPLHATIIKPYFNDCELSTKIDLFQASIKPNNFE\*IVQKACELGINSIYQTIFKRTYNSTLIKNNRISTIIKEACEQARRNYLVNYYEQFSFSELLKVLLNYDLILVAYENEKQIFLNDIFKENSTYQKIALVIGPEGGFEQEEIALLKKINNVVCISLTKTILRSETASLYLLANLINKLI\*

>UUR10\_RS02225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 isoleucine--tRNA ligase

MKDYKSTLNMPSTAFEMRANLNIKEPKIQQF\*IEHGIYEKLLAKNKDKKPFVLHDGPPYANGNIHIGHALNKILKDFVVSYHNMNNYYSPYIPG\*DTHGLPIEVALSKKVKLSNLSVNERREQCKKYALEQVDNQIQQFLRLGMVSDFKQRYLTLDHSYEIDQLKLFANMLKKGFIYQDFKPVF\*S\*SSQTALAESEIEYGDRQSPAIYVKMQVVDSSELFNDKPTSFVI\*TTTP\*TLPANLAIAIHPELTYSLIEYKNENYVIAKSLVESFTKKVGFEDYKLIKDFKASALEKIKYISPITKKHAFIIMDEYVSANDGTGLVHNAPAFGLEDYYACKKYGIETEVIIDQFGKYNALVNDSELENMFYEDANQVILDRLICNQLLIHHELITHSVAHD\*RTKKPVMYRATKQ\*FVSIEKILPNILQTLKNDVKSTSFRGIERMHEMIVNRKE\*CISRQRV\*GVPIPMIFDENHEAIMDPDLVENIINVLNEKGVNA\*FDLDVNAFLTPKYLSMKNKTFYKEKDIMDV\*FDSGSSYNVLQHYNLPYPADVYLEGYDQYRG\*FNSSLITGTILNNKAPYKYLVAHGMVLDGEGYKMSKSKGNVVDPLDVCKVYGADVLRL\*IANSDYQNDTRISEEILKQNAEIYRRIRNTLFKYSLSILNDFEPSVDFSFDVRQEDQFVLNEFNELHLKVIKAYESFDYQTIVKLFNKFILDLSSWYFENIKDDMYCLAVDDPIRKQIQSTVY\*ILKNSLIDLTPIIPHTTEEAYSFLNDANKKESIRLEDFYDQSQFQFKKGIAHVKAFFSIKDEIFNELENARKNNVLKKNNEALVTIAKNLILDDYLLNNPKLLAKWFGVAKIEFTNTTSVVNANFKKCLRC\*NHFADDEMYDDELSMNCYKVINKIK\*

>UUR10\_RS03245 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S16

ILVKIRLTRVGTHKKPFFRIVVMDAKAKANGAYIENLGHYDPVLGKVVLKKEAILAQLQNGAQPSETVKNILSQEGI\*KEFIALKDANKKRKAALAKAK\*

>UUR10\_RS00390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 FAD-dependent oxidoreductase

MNQQIYDLVIIGAGPAGLAAAVYAKRSGLNVIIVEKQFPGGKVALTANVENYLGINSISGPELAYKMYEQVLNLDILVIYELADEITLKEKYKEVKLATQTLIAKTVIIATGTENRRLNIPGELTFENKGISYCAICDGPLYKNKVVSVIGSGNSAVEEAIYLATIAKEVHLIANKPEFKAERQMVEIVKNTSNIKIHYNKQTFEFFGEEFLQGLRFKDLVTNEITTLNVEANFTFIGLLPSRINASNLNIFNETNGFITTNKNMETNVHGIFAAGDIVDKSVRQIATAINDGVIAALYAKEYITRNN\*\*

>UUR10\_RS03380 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 thioredoxin

MLIKLENNQNLNQILKDNHSKPVLIDFYAD\*CPPCRMLSPVLDSIEKKYGDEFTIIKVNVDHFPELSAQYQVKSIPSLFYVKNEEIKTNSLGFIDENSLVNKLRSI\*

>UUR10\_RS02820 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycosyltransferase

MLLTIAFYLSKTTHYLKKNFNYFLDLLNQNKKHIELIIIDDASDYNLFKTLKPLIENTNSKIKYFYLNETQGNAYAYNLATKYAHGKYI\*YLGGHTELNLDASSLLFSVLEKDYDVISFNLNDNVNQNPSLVFDSLNKEVLVGL\*ESISNKIIALDFIKKHQLAFYNDK\*YPALFIYDLFTKFSS\*RNVNVNFISNNSGEVGYNVYDLLQQINELYAKFSNDGLLEIYKDELCY\*ITGICIHSFLKKIYELYTININSKKQIKERTMIISHALSNAKKYLETYFANFENNPYVRKYKTNILKYYLKSKQGLN\*

>UUR10\_RS02955 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MINLST\*NKTYSFKNPLKYQNKLAYLKTIITVAISIIVFIITLA\*TYDFNFKQNNIALVYIVMQIFLSGFVLGFCAYFIQKLTKNRFGDTSIMGISSVNILGVIIIAFQVDFNNFSIDKLTTLQRTEPLIFFIAPIILCSIYYFTCKEESNFNYKKMLISGVIVNFLSVALGSSIAKNLPKLANAYISRYTYGSIEPQQESFFIALVLIIIGFLIIMFNFKKIQIVSSNQDLANQLGINVKLISGLLLVAICLMVGASYSLNGNLIFIGLMAGNMGSVISNNRFKSAAISSGSCGALIYMLSFLLFIKILNFDSQ\*LNLAIPLLISPYFIYIIVKKNKSDL\*

>UUR10\_RS01210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-1

MADTEKLKMLGKIVEILQGGNFRVQLENGITIMSHVSGKMRVNKINILPGDTVDVELSPYDLTRGRITYRHRDS\*

>UUR10\_RS03430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glutamate--tRNA ligase

MKIRTRYAPSPTGYLHIGGARTALFNYLLAKAYDGDFIIRIEDTDVERNVEGGIDSQFNFLE\*MGIVADESIRNPKTFGPYIQSQKLKHYEALALDLVAQKKAYFCFCSKERLDADRELAEKLHETPKYKRHCLNLNEQTIQANLLANKEYTIRLKIDENNEYS\*DDLIRGKISIPGSALTDPVILKSNKIAMYNFAVVIDDYEMQISHVIRGEEHISNTPYQLAIAQALNYDLSKIKYGHLSIIVDETGKKLSKRNLALKQFVSDYEKDGY\*PHAITNFVALLG\*SPKNNQEIMSLVEMVENFDVNNLSKSPAFFDINKMN\*FSTQYFNNISQDEFIDFVKTHPLTKELVLKDTTFIDKALLFKSHIVNLKQLINLVDEQFNSNKQLLEEDVNHIKNNQLTNVVQVFYEQLIVSEKFDEQSIKEVIKQVQKTTNNKGANLYMPIRIATTFSSHGPELAKTIYYLGRENVLKNLQSILKVLG\*

>UUR10\_RS03445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein insertase YidC

MSSVDKQNLMNRMRISVSHFAGASNANSTKKERRKKILNILLKVFKVIVYTFFLGIGLYGCFQNMANH\*TINSTVVGNGFELGFHVDPILGANDIRFDLIYSGTGP\*YPMSDFSFDYGPFYALFVWPIAQILLHFMYATRD\*PAGLNAILGLIIILLIIRVITMLISARATIQTERISEIQGKIAEINAKYKDAKDMQSRQKKQMETKELYQKHNVKPLAPFESMIITLPIFLIIYRVVTILRPLKFISIFYI\*DLSATPISEIFSNFTTSG\*PYIFFLLIIIPVQILSQKIPQLLAKKRNRSATTVGAKNKQQLKRVRMTQNIIAIVLAVVVAISASGIGLY\*FFNAIFTILQSYIIHVIIMKRRSNSATRIESKLAKLGIS\*

>UUR10\_RS02260 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSDKKSDFEKLFERSKVQETSIFDINDIDEQKPYEQHSIEELSYILEYEKIDKKTREKIKKIIKEKQRNL\*

>UUR10\_RS02680 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF1410 domain-containing protein

MKKNTRKKFLQLFSLIALIPLSSFIVMCSKAKTQEIKEQSKIKARSIRFMDKDLTSINIQFYFDKIDIDDILVKKFNIELEDDKKNKINIDVNPIYNKKLQLLSFKLENLKPNTTYKITKFSITNQIADLTKVDNLSFNTSPENNLPNLPNLPNDPNIKIEDIKTNEANNNSIKITLNINIENNNNLENKYVRLVYKDNENKLKLSNILKINDLKKQNFILEDLTSNRKYSFEELIIGESNDLNLNNAQTKISTNQKQKFSFVTLPNPVKITAIEIDSKFDNNPSSLITLKFKDNENNLKENDILKIKYKKAGPNQVVFEKSVRLTNNLEVLFEIENIKKNEQYEIISIESNSKHGYNVNPSVFNFSSNSLRIFSIKD\*

>UUR10\_RS03405 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 thymidine kinase

MAKAHAFSKKVG\*IELITGPMFAGKTAELIRRLHRLEYADVKYLVFKPRIDTRSTQNIKSRTGTSLPSIEVENAPEILSYIMSDNFDNEIKVIGIDEVQFFDDRICEVANILAENGFVVIISGLDKNFKGEPFGPIAKLFAYADKITKLTAICNECGAEATHSLRKIDGKYANYDDEIVKIGCQEFYSAVCRHHHKVPNRPYLNANSEEFIRFFKNKKRNKNV\*

>UUR10\_RS01345 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S21

MSRGVNVEGDLEKALKKFKRISNETKKDSKRHEYYLSPRIRRKEKIKEANKYRSF\*

>UUR10\_RS02120 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LNLRSFEFLKGNETV\*DKEKKAINVSLIKASISCTIMCILIVIFGFLMRKYLFEYSSAVSLTINSKFVFQIITGIVIVLSIIYFIVHLILYFRRRYNFFAPKIG\*SITLYILDGITMCFMISYVSAIVGLDLTLIAIGISLSIIVAMGILGFIMNHKIAFKLSIANIVLFTIATIGSIILLIVFFTTRYNHGFNQGIIIADIVLSII\*LISLSIGFASTIYSMRIMAEHHNLENHKIMRDFTT\*NSYLLFASFNRILLYVIRLIALFKRV\*

>UUR10\_RS02740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycine--tRNA ligase

MKNKFKTQEELVNHLKTVGFVFANSEIYNGLANA\*DYGPLGVLLKNNLKNL\*\*KEFVTKQKDVVGLDSAIILNPLV\*KASGHLDNFSDPLIDCKNCKARYRADKLIESFDENIHIAENSSNEEFAKVLNDYEISCPTCKQFN\*TEIRHFNLMFKTYQGVIEDAKNVVYLRPETAQGIFVNFKNVQRSMRLHLPFGIAQIGKSFRNEITPGNFIFRTREFEQMEIEFFLKEESAYDIFDKYLNQIEN\*LVSACGLSLNNLRKHEHPKEELSHYSKKTIDFEYNFLHGFSELYGIAYRTNYDLSVHMNLSKKDLTYFDEQTKEKYVPHVIEPSVGVERLLYAILTEATFIEKLENDDERILMDLKYDLAPYKIAVMPLVNKLKDKAEEIYGKILDLNISATFDNSGSIGKRYRRQDAIGTIYCLTIDFDSLDDQQDPSFTIRERNSMAQKRIKLSELPLYLNQKAHEDFQRQCQK\*

>UUR10\_RS03230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YitT family protein

LNNNEEKTHPKNRIKKIFN\*RNKTKEALRTENNLLKQISNEATIQQSVQIEKIRYKAGLLKFAALYSTKKIFLRYLIIVIFSLLASLLVLLLVHNTGIYSAGIMGTSQGIARILQSIMISNHSSPKEAKLAYDIMF\*LFAIFVNIPLLVFSYKKIGKHFTLMTLTYIVTVQVFGFALSQIPNVEKIMIFGNNRLSYPPINSFFTNSILDEKIAQNIEANVLSYANISNLEIRNEFINYVQANPNATIGDLFHLNQTTTYRQALYEFAKPLYVFHDLIVNKVQILS\*VDPNQASKIPSILIYAVIYPIFDGIFLSIIYIAGGSSGGTDIISF\*YSKKYGKPTGSILTYFNVATLIIGIVLGSFAPAGMINPRY\*DTQYFFSPNMVASILASIVLGIVFNIYFPKHKSLKIQVYSKNTSAIIENLRANDFNNSITLNSLSDSLSLRTNYSLEIISPYIELPSLIHLVRDIDKDCLIVIYPIIDIDGEMVVRKSTIS\*

>UUR10\_RS01590 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YlxR family protein

MAMKVNQRTCIFSKKKYPKNELVRFVIINDELIFDLNHYRGYYLKIQKNMNLEKLYQFLKKRFMIKNEEQVYQILKQLIQSLI\*

>UUR10\_RS02850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 acyl carrier protein

MVVNVKDIIIKVAKENKINLNMNNLDVELKSLGIDSLSAMSLIMKIEDKIGVQLVDEKLLKIKNLGDLIMAFEDALK\*

>UUR10\_RS01250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein

MSKFFKKQHL\*K\*SLFCLPLVIIPFIISACNNSSLQKQQKLVRNQISFISDGFKNYYVNLAFDQSLKNNKKMIFNVSLIDEKNQKNDLLVKDYIIKDKQILIKLPRLIK\*NDRLVITSNNPLFKPINIRIFLDDVIKLDNSIITTKTSVDSQNN\*TTFLNNKVIHNLLLSIYPDQKEREEYIKSQQNIKPDYTQEIAN\*LNYYNTVQNDANKGPVYDKNPKKNKPKKNPFGGGSVSNPFAYQQARKAHNKLFNEN\*L\*FLFNLTKQIFMLYPDDNLFQESSEETVQNLKDSKVNNHSSFYRASSNEFIDGLYVIESSNLDKKPEELDEYTDFSKTAKFALLNKEGFIFTIFIEENYDKTKKLVSRQVSLVP\*IKTLPKLMFNDHTIKHDFNLANYTENSYDYNAINFHSPLEIKVYGDQFGGKAIRFSFVDIDSN\*

>UUR10\_RS01075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 BMP family protein

MRKIKLNKKIILASVIGTLGVALVPTALVACSQNKTKSDSKNLTLNNFYGRPSSDGDDAYQAIYESKIQDGARMLGLISFRHKNPISKYFNSPKDNQQVSAILIDEIYDLQTGKDRIASITYRADQAAFLAGIAAAYYLNSNQNVFGKDNKLT\*GGFVGIHLPSTTRFIQGFKFGIQ\*ANEKLKNKKVKQTENNEEKE\*INVEQVFATDYQSGDFSPTSDKAKTIVNQLVSNNVDLILPVAGLQIDYATTTAAESSKPIVVVGVDTEQELDDNTNKARISENNKTLANGKTIIFSIVKRLDLAFKGALLKASEGAQLTNDINKDAYKLGTHTEASFNKNTYVDNTALVELSKAGHQYLIDAIKLSGLKEVNDYKTIVEKIQEDPLFKLLSQTGTKKLDEVATKSQQGD\*VLKSEYQNLSFIQLQKMLGGLVYVDQKNELYPYELSNSFYLEKDPNKRQASKAFYNY\*NAKDANQINLVKIFLGQSVDVLKDKSFSESIYKGLEEFYKSKNIIIPKLY\*

>UUR10\_RS00325 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MNQQSQTIKPVSKLHLIYYYFKDFKKSFIGLSIAIVL\*LAATIAATFLLQETVDKYAVANGVVDTVVKMCGGLIGIYFLSFIFLLIMNEFAIRISFKIESHLSMMVINRIRYLPMKYFDVNKSGEIFTKTLSDPTSVQDGIVNFYIELNKTFFGALGFGIALLVTSPYIALIGIAIYTLV

MLFNILIFKKSRQLMRKKRQDFGEMNGYIEEMIHGQNVVANFDEQAYFVKKLDNMIKNLYKN\*VKAQYSSQIIFP\*SIFSMRLMNAVLIVSYLLISIKGIHLPGIVSNIDPVTNMISFGGLVSISLFGNFFCDNFSQLSNAIPIFIIARTSLAKIDEIVKTPNEID\*DEKLVIDDSQGIEVRFENVNFNYSKNKPTLKNINFVAKKNQKIAIIGPTGAGKTTITNLINKFYDINSGHIYFNDVDITNKSRASVREHISIVLQDPFLFSESIYENIKKGKMNATKEEIVEAAKKAQAHELILSFEKDYGTVISEKQSLSQGQKQLITIARAIVSDAKIIILDEATSSVDTQTEHKLQLAINNLLKGRTSFVVAHRLSTIINSDLILVVKDGEIIAQGNHDYLIKNSSFYQDLYYTNFAE\*

>UUR10\_RS00360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNFKSTIINKKPID\*KHTIVLEELSVDPKALEMHKERINTVFAKQTEEQRAQQLHNIIVRENLFNKAMTYLADFYEIDVNEEDVKDLAPRIKQAFGVEDEKLAYEISQKIIAKALIFQDLQKEFNIEIKDDELTKILESYYEETNLSIRDFKENKAQ\*EAAKSTLLEEKTTAFIVDKFDRDLSILEANIRKKIAEQMELDKKIKEVQDNSKAKQNADK\*

>UUR10\_RS00715 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit alpha

MTDNKNHSLISDIKSQIKKFSEKALTLEVGNVISLGDGIVLVDGLDNVMLNEIVRFENGVEGMALNLEEDAVGVVLLGDYSNIKEGDRVYRTKKIVEVPVGDIMLGRVVDALGKAVDNKGNIVANKFSVIEKIAPGVMDRKSVHQPLETGILSIDAMFPIGKGQRELIIGDRQTGKTTIAIDAIINQKGRNVNCVYVAIGQKNSTIANVVRDLEAHGAMEYTTVVTANASELPALQYIAPFTGVTIAEE\*MHQGKDVLIVYDDLSKHAIAYRTLSLLLRRPPGREAYPGDVFYLHSRLLERACKLKDELGAGSITALPIIETQAGDISAYIPTNVISITDGQIFMMTSLFNAGQRPAIDAGQSVSRVGSAAQIKSVKQTGASLKLELANYRELEAFSQFGSDLDDETKRILKLGKAVMAVIKQEPNKPYNQTDEAIILFTVKEKLIPQVPVERIQDFKEYLLNYFKGTKLRADLEEKKAFDKENTPAFKCAIQKAINNFLNNSQDFKPCDELEQTAYDKFFNENEPIVVVNENEFFDEQINSLPTFESIHPVQIEEKVQELAEPREVFEVNKIEKEHLFEEVEPEKIICEHHQFEITEDQEEVDGQEVLEDENHEYAIYEVVEQNDTIENCKEANDEAEIQVPVAEVVQDEEILNERENRN\*VFSDSAVSEVEKQTIMISISPNESEQLFDNGRSVVFFKVAPKYPVEKVLVYVTSPIQKVIGEFDLLKIDVNSVNSS\*NKYRSSSVISSRKEYLEYFSSHKEAHALLASKVYKYRRPKDLASFNMKKGPSGFTYLK\*

>UUR10\_RS02645 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 adenine phosphoribosyltransferase

MINIDYIKSKIRDVPDFPKKGIVFKDITPLFLEPKIIEKIVDDFADFAKSLNIDAIIGAESRGFLFAAPLSIKLNKPFILVRKPNKLPNDVYSAEYTLEYGSSRVEMHKDALKPNQRVLIVDDLLATGGTVAAIENLVHQAKGIVAGSVYLIRLGFLKGEEKLSGKVHALINY\*

>UUR10\_RS00570 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding cassette domain-containing protein

MEKTLLHLRDITKIYDDGFAAVNKFDLKIKKGEFVTLLGPSGCGKTTMLKIIAGFEQPTNGKILYNGIDIKDMPIRLRPTSTVFQDYALFPNMTVKQNIKYGLKLMRKPKDNVDQSIYLQADKVYNSALKKANEKIKELKKQRRGLLAEIKKMDLKYQKNKNIFEIKEMRKNQYLGTLDELYQKQGINKNGKSDFLNYFKN\*FSREKLNLNDPIDKEIYNLKKAYKEKSGLDKRYDKITYKYNDLDY\*ESY\*ATYPQLKKEQFENKNITRLLTKEEVEKEANRVIDLVGLSARKDSYPSDLSGGMQQRVALARSLVIQPEIILLDEPLSALDAKVRKQLQDELKKLHKNLGITFILVTHDQEEALSLSDKVVVMSNGQIEQVGKPSDIYDSPSSL\*VANFIGKTNIFEGHYIAKGEVEFDGIASKTDVIDGFDENEACYIMIRPEDFDVVKKDEGSINARVESVLYKGLM\*DIKCKYNDMIINVEGVNKVNEGDEIGLD\*DDIDVHVIKKDCLSNEQAI\*

>UUR10\_RS00725 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase F1 subunit delta

MKSSLKPVEKYAYSIFEIAKEEKKLDLYKHNLETINSIIEEVPAFFEAVGDPARDRNERKQIVIKNLEGEIDIYLISLIDLLIDVKSIKLLKKIVLKALDFVNEALSVKKVLITTAYELTKNQIDRLVQSLKKKYACEKIEPIVVVDKSIIGGLSINFESQVLDNSLKTKLFNVVKKTN\*

>UUR10\_RS02320 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease accessory protein UreD

MILSKEKINNYAAYLYIKVAYDEAHNKMAHTVYFTNFYRSSKPLFLDEEDPINPCFQTISMGGGYVSGEVYRSDFEVEANARCIITTQSSAKAYKAVDGKTSEQHTNITLGKNSILEYISDNVIVYEDGKFAQFNNFKMDSTATLIYTECFGPG\*SPHGSAYQYEKMYLNTKIYYDNKLVLFDNLKFQPRKNDESAFGIMDGYHYCGTMIVINQEVVEEDVIKIRDLVKEKYPDMDMIFGVSRMDIPGLGLRVLANTYYHVEKINAVAHDYFRRKLFNKKPLILRKP\*

>UUR10\_RS00040 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSFTSLLQNSV\*EVGNGAIVTDQAPYLGIAPDYQDAYGFPTHP\*GIFFQVIGAILVFGAYLPAVIKVLVSKRTENLAIGM\*IISIAGLALLAVFA\*LGVSTNPGGFILVALSETLSCIASIIVFALKIVNKSKAKAAGMTELEYCNLHYPIVKKLPKR\*

>UUR10\_RS01215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L36

MKVRASVKAICKDCKIVKRSGVVRVICANPKHKQRQG\*

>UUR10\_RS03290 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MMNDKLVKELDGITRLYYENDREQFEKSLINI\*TKTMGYTPNLQQPKTYNEKLLYMYLKADQSKILEIVDKISFKK\*LIKHRLYQYQVPTLAVFNRQNQITLLDLNKFAKPYIIKLNNSTENEDLYIVRETTSQAELMQIAIHFNDILLNKKVNQSRNFYET\*CYSQIKPQVLVEPLLGKQTLVADYKIFCFEEEQFCLYMNKDEIEKNN\*N\*DFLKSDIFDLKNNKSILNDETIDFDFSEIKSVCQKIYQILKDDFKHFRVDFYYVDNRLYIGEITFNTSNAFFTF\*DDPQ\*RQKDLE\*GKY\*K\*

>UUR10\_RS00070 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 sugar ABC transporter

MLKFKTVLTCDNLFKGQERKTITKKFLSTVFAIFVAIVVSAILVGILGYDIRDFFIRLFTK\*VGSPDIYLTKVAILGIAALSFIFAFKAGLFNIGISGQMLGSGLIMLLVVKNMQIANINMPNVLGQFFLLIIAMLAGAMFAVFIGILKVFLKINEVVSSILLN\*IMFYITRYVVFTAQGKMYNPTPDQVGSRSIPFADNYSLFHLASGYGYLFALLIFISLAIII\*IILKYTVFGHKVLSVGKSFDAAKYAGYRTKIISLATFAISGALAGALAMVNYTSTTTNAIVISQASDALPTQGYDGIAMGLISLTHPLATIPVSFLMGLLQQSADNLGGSFPQDLSGIIISFVMLGAAMFILFERISPVY\*IYHLIYTYKGKDYYRDYENKNNNTISEYKAIYIEINKKRNQYLQELKELRKELDKFKNQKQYNGVNEQYQHTVNYIKTTYNN\*LKVEYSKYLEQMKNNVMQLKKHLIIERATLVYYPEINTTRKVKNKLKHFENISAKKLSRIKDKIHNEDFLIKNLVAKEIGKYAQSKSFDYNKLKYLLQQYENNDSILTIDLIDELSLILKDEQVQVMFNEFKQASNENNLEHISSLKNEIMSYINSLLDSRLEQLSSILKSKNLVHDEQMDAIISLLNPNDKIFNKIIVSRNKHLENYAKEITKLETKTTSQSDEIEKNTKQHSTSYLTKYYQKTKQHINKIKLDQKQKLLLED\*LTTAYQKAITNQQNMKEVIS\*

>UUR10\_RS02815 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RDD family protein

MSDKTTLKQENTIEYPVVSALRRAGAGVLDYIFVSILAFLLSLLVFINSNFKISDVFVNNDELAPEP\*RLFLMAIIAFFVYCTYYIIIPVFCKSYTLFR\*AFSIRMISLVKQNDKKILFVALIKHSLLT\*LIFIMINLLAMGFCFAFADASFKSIEAMNEIELKEHYRQIKDLKAYVQSILSLKINDNFTSTTTMAILSILVKSLYSIMGLISCIIVIHMFMNSKKRTLHDQVAKVVLL\*MHYEKPKQAPKHKTKREVEIQKIDNLIQELDKI\*

>UUR10\_RS02290 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNIKKIKQEFSFSYELIEKEIKNIIKN\*AMFKNE\*EFLMATIYFSSKAIFREISLNN\*KKFSSYANEIFLEINAKNNPLQTFDLDY\*YLEIKKLIQELSISNHLLNEQLEQIYLKFLIFY\*HNITIPKTYEIGDFSIVCLRNKALVDCMQILQEYYHINVDILIDLVIKQIK\*

>UUR10\_RS02200 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF1600 domain-containing protein

LINNKKFVNKTLDNANQIRIQNNLKTYAPKFLNLIILNNLFLLIMIVSLCIFFSDPRFLYRNDVISNQYRQFIFTYQQTSIAITLYTLA\*YIMVNFFFFGYILEYVKLNKLETFNFAVASILFNPYAYVIIAKN\*TS\*TYY\*QRSLYHILSENNKIEFNIKDSRSIFALIFLIIAIPFIVFSSIDYVPKNPGRLIIFDKNSMGTEIIYTNNI\*FHNMHYFTSQGN\*MCIGMAFLYFINPKARFVKNNRVLLIVLSYILIVSSI\*LFVLFPVFSQRST\*V\*FNNMVGFYNHLVTPVTFTIFAYYCIVKNKYVIHLKYFYA\*KGFMFYVVIYAIYAMFLPLLANVTVYGAITNI\*PSANGNPIFTTMLFALIGYEILIFTIN\*MILKFINKRKKAKILIN\*

>UUR10\_RS03160 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 GNAT family N-acetyltransferase

MVSIEKINEQDINAIVAYVVAFRKRLYPEIDHNTLPKELANFKQTYIINPLGA\*FSVFLEGTHELVGTISCHEYNYRYNDLFCLDKNIKTSEVGKLYIDPSIRRQGIATSLFNALREQAKKQGIQCFYLHTHHHLPGAKQF\*LKMGFTIQKEMTLEDDGKDIIHMTLEL\*

>UUR10\_RS02080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(P)-binding domain-containing protein

MSKILIIGSGAFGSALTQVLVSNHHAVDVYGINQNELNDLQQNQKNTTYFQDQKLSQPINNTYLDIHLALKNHYDFIVIVIPSFAIKNFVDSIKTLDLSQAIVVNAAKGLNLETKSS\*CDYIQQNLKIKALIGLVGPSFAIDVFLKKPTVVNLVGTDLDALIKTKQAFEND\*FKCVLSKQFEVANYISCFKNALAIGCGIIYGLEKSHNSLVAFLTKGINEMQLILETIYQKKVNPLEYFFIGDTILTCTDQKSRNFSFGLLVAQQGVQTALENKQKTVEGLNNIKVIYEIIKTKQIDAPLFESLYEVINENLTPKSLFNKSFC\*

>UUR10\_RS00005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MSNNYQNLYDSAIKKIPYDLISDQAYEILEKAKVHKVYDGVLYIIVASAFEKTIINGNFINIISKYLSEEFKKENIVNFQFIVENEKVLINSNFLVKETVIKNRFNFSDEIMRYNFNNLVISDFNRKAVKAIESLLSTNYENSSMCNPLFLFGKVGIGKTHIVAAAGNQFANSNPNLKIYYYEGQDFFRKFCSASAKGTSHVEEFKKEIASANLLIFEDIQNIQSRDSAAELFFNIFNDIKLNGGKIILTSDRTPNELNGFHDRIISRLASGLQCKISQPDKNEAIKIINN\*FEFKKKYQITDEAKEYIAEGFHTDIRQMIGNLKQICF\*ADNDLNENLVITKDFIIECSVENDIPSNIIVKQQLKPEQVIEIIAKELNLKVDLIKSTTRKNSIVWARDIVCYVLKNKLNLTLTEIGKLLSGREHTTISHSVNKVEKILADKNSQEALQINLIIDKF\*

>UUR10\_RS01635 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RNA methyltransferase

MLKVITSNKNEDIIHFYNLIHDKKYREANQLFIIEGFKLLDEALQNQQTIVAIIINERVYDKEFETIFKYTLYDNVQIYKVSENVIKKLSVNIDPSPILAIVKMKEETCDVNDNVLLLDNIQDPGNLGTILRTCFAFNVKQVIFNNCVDLYNAKTIKASMGAIFKINFLRFNSSKLTLEFLLKNNFYLIATILDKNAISLNELKIKQKYCLMVGNEGHGLSQNFIDYASIKTMIKMNQTESLNVAVATAIFLYELNK\*

>UUR10\_RS02730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 GTPase Era

MVKKYGIVAIVGKPNVGKSTLINAIMRKKVSIISNKPQTTRNAIKEIYEDDDSAIIFTDTPGFHEPSNKLDLFLNHEIEVSYKEANVILFVSSMDKELSEDDFEIINLIKESNKENVILVISKAEVAKNQDKIDERVHQLNKYIQFKDVIQISALHVINIDKLINTIKQYLHKDVVTDYFRQKVEKEDKFIIAETIREQCLLNLNHEVPHGVGVEIDESKYNQEANH\*IIKASIIIEKNSHKPIVIGQNGAMIKKISMAARKQLHEIYDCHISLTIFVKVENN\*RENNNVVKSLGYKIKK\*

>UUR10\_RS03120 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein

VTNITSVLHATNTSQGNGINS\*QSILIFLAFLIVFIIFTVIKKIYYSIRFQKRFYIIPKTSVKGISNIAMVISISVAVIILLTVLSANTASVIFRA\*PGTRVTLEGILVKIGGLLFGPILGIFIGAMTDLLSVAMTAGVFHYGYLIAAMAYGLIGGLIRIILTTSKKKDLPFAIYSSIATILIGVAIALFLYFAPGIGDKGFNIQLFGFDIKIARTLMIGIILGFFLLSIIVV\*FSLLIKYLLNHKNKNKAKSN\*FIIFAPVLVTILLTEAVVNVLMMPSFDAELSSLKYTQ\*LSIRAVLFVPMVVLNLLIIYPIFKIVVPLIRYDYEDDIIEDKHIPIHVD\*

>UUR10\_RS01705 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNRQQIHAKTRLTINELNKFYALIKVQKQSLEDLENKIKKLD\*INFKEIKDQKLFNDSKFDYKNITPYVISQIQDLVSAYNTKQISEIILELNQVNIQVQAKDSEFYIKNNNKLNLISSEFEKYSLKNYDAYEHFKITMDDPKIQTLNHQMPFESKFNTKIIIFTILGFCLLCLFIIVIVCALLIAGVI\*

>UUR10\_RS02100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (cytosine(1402)-N(4))-methyltransferase RsmH

MEFNQHTTVLLNETIELLHVKPDGIYVDCTFGRGGHSQLILKKLSKKGKLICIDQDQQAIDFANNLFKDNPNVIVIKTNFKNLKSVLYDHQIFHVDGFVFDLGLSSPQLDDPERGFSYHKDALLDMRMDQEQKLNAHYIVNHYSFAKLVNIFTKYGEIKYAKTIANGIVKERSTKAINTTLELVEIIKNYSPKKILFEKKHPARLFFQAIRIEVNDELNILKKAFNDAISMLNPLGVVAIISFHSLEDKIVKKVFNNYAKNKLPKEIPLNNYVNQYSLLNQKIMPSTQELNDNNRSRSSILRGLVKNY\*

>UUR10\_RS02550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome biogenesis GTPase YqeH

MITNKKCKGCGAFLNDEINTIGYTPKLNDTKTNLCQRCFKLIHYNKLEKVHTNLNKNIKNTIDNLDFSNLQIFMVLDILDLEHTIIDELKKYQEQIIFLVNKIDLLPHRYNSELVNENVIKTLVDHGFNNPQIVYVSTHSNTSLKKVMDCIKNATNKKQKSIFLGKSNVGKSSLINALLALNKIKTKLTISSYTNTTINLNKINLLEHQIIDAPGVCFNENILNYVRDEDNKSIMISYGAKAINYQINPQQAIMISGLVGVQYLQGQKTTFTLYVSSQLDIHRCKLENFITNFNNRYLLAKFNYVDQDIEFIDHTIALNKNQKTNICIAGLGLLVINANAEQICIRLPKCVGIKVAKYAII\*

>UUR10\_RS02185 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKKAILISIASLVGVSAIVATSTFLSLSAKTDVYAKSIQASSVNQSLNYTNLSNANVGIKEMLLGTKKINNGNYVLYIGTQSNLDNLDFVYSNQANHINSVNDLQYNDNLNFNGSLSKTINNVKNYADKDIYEHVPQFYSFIDLINSDVFKQKQEYENLIKQNKSSTIKEDQN\*ANNAPAEYSFDVNKKYKDKNGKEVYFRNDAQAIKFREILNFLKTYLSKEKLVELSATKTPGIVLFYSQDNLSKGPRVYASSKTYDQSKNERKESYPSGNNVYNSAQPEFGGDLNAAIYSIYGKK\*

>UUR10\_RS02335 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease accessory protein UreE

LTVFKEILGNITDIENVESYQIENIHLTSDDVLKRVIIISSDQNVEYGIRLEEDKKLRDGDILYKDDYKLVVIRLELSDVLIITARTIGEMAQIAHNLGNRHMPAQFTETQMIVPYDYLVEQYLQDNKALYEREKIKLKEAFRHCSDAK\*

>UUR10\_RS01015 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine/threonine-protein phosphatase

MNFGFISDIGSQRKHNDDCALVIQNEHQQTLLIVCDGLGGYKGGAAASHITLETIKDNFLATNFNEYDEQQIRK\*YIKVIKLAQIEIDRAVLLDKDVYNMGTTVVASIIINDFVYTLNIGDSRAYLLSNNQSSQISRDHNLLQVLHERKVGPEVYEKHEKNLFSLTQFVGRTSNVVLSYDLFVTKLHHNEIIVLTSDGFHNYFELNDLYDKLIVTNQQTNNQILQQLINQAIDNGSNDNLSLAFLIF\*

>UUR10\_RS02725 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 rRNA maturation RNase YbeY

MRFLITNEVKSVFNDEIYLQRFEQIANLISIKLNIDKERFFECHFVDEKTIQEINRDYRNKDYITDVISFAFDDGEIITPLLGEMYICYQKVVNQAKEFGHSFERELCFLFTHGLLHLLGYDHIEVEEEKIMFGLQDEILNELNITRNVNGNKNG\*

>UUR10\_RS00590 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 suppressor of fused domain protein

MNYKYTAKEKQIIYNYILREYGQVDHIIFLSDEHIRVPIEYDILVIKKDDLQILMTFGLGAFKSHNHIEKTQERAEIFLELPID\*DFSKYENM\*PVHFLINIVKYSYSNHLTLKWLQTFVNPSYFNKSNKIAGFLDLS\*YSENSLECKINDDFFVSFYQILIIDDEELFYAKTNGIRALSKFFDDGKSRIVDLNRKSFVK\*

>UUR10\_RS02385 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MGLFSKKNKLNQELSTNQNTVNDEVSHDDKSIYQLYDETIVTKKVKVRCKVCGVFM\*VDYTKTIKSLRNLALTNVQQEVITIEEPQVLEDNSDVLLTPVNDQEELVSEEYESAPIESIQEEQIVEDNEPIQDENEEITPPVYEVEEPTLKRTSFTPVAFEFEEPIFENIYSNQKVYAENLFLESMFSEKENLINDDQNDFS\*LSKYVSV\*NKRDEAELAQMVYDERLLAPEISEFTHNEYFIEEEYEHADPDNHHNKHKAQRHLHGHDLVAKKHEKQLEKKTNEIIDQAIVAIDSMDEEQQTSLKTIISEEEFKANPVLKKT\*\*ETESANKSSK\*

>UUR10\_RS01085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L35

MAKIRQKTKRAAAKRFSITKNGKLKRKHAYRSHLALGRSTKAKRHLRKDAIMSTSDTKRYTQCL\*

>UUR10\_RS01330 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSTKAFNPKERVTKTVVLSDLDQHQNYSKKHKKMDFKKRVVLSIFLILLTCGAIILLVFVITELFRLSA\*

>UUR10\_RS03145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S18

MAKVINNRNRKPRKKVCILSAKGIEHVDYKDVELLQRFINNNNKIASRRVTGASARMQRRIANAIKRARFVGLLPYVKE\*

>UUR10\_RS00665 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LKINITKGKTIFKRNYKKKHSIYYSTSKIIKDYTLSAVMLGLGILIAYLSHFIRFNFLAFDFSLFTLVYLIYKVKYRFVYLVTILLSLANLLHGSPSWIGTMVLSLNNLFFVSMVILFKKLFIPKRPKFYLNL\*VLVLSSFLTTVFNVIMNGILYTPLY\*YTFKITPTLNFLEVQKIYEKHPTLFLLNIKSY\*LGIIALYTSFNLIKNIIISFISLTILKIFADKKTIITY\*

>UUR10\_RS00705 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit gamma

MSLDAIKRKISSVQTTAKITNAMKLVATAKLKRQRDRLAAIKEYCHDYYDVIGLLLSVVNDIEFLKIPNAKNRTLYITINSTMGLAGSYNYNVNKLVSKIINEDDITFTIGKKGHDFMRLSNRLHQVNTYLNLNDNDLTFDMSLQIAREALELYSNGEVNKICIIYTKFINAITFEVNNIDVLPFDKTVLTKDNLAETIELAKDNIIFQPNKVELVKKILPTYIATVLYGSLIESKISENASRRNAMDAATKNAKALAEDYKLIYNTLRQGKITREITEIVAGSDD\*

>UUR10\_RS00805 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tryptophan--tRNA ligase

MKRLISGIQPTNNLTLGNYLGAIKNFVDLQNDYEVFLFVADLHSLTPNIFDNTNFFATKRQIIATYLAAGIDPKKTCLFYQSDILAIPLLSHILLCSTSIGELTRMTQFKDKSAKATKMANNTEMIPSGLLTYPALMAADILAFNADVVPVGQDQKQHLELTRTLADRFNKRYGQTFKLPQVYIPKIGAKIMDLLDPSVKMSKSSKNPKGVIFLNDSREQIIKKIKGALTDNLNQVKYDVEQQPSVSNLITIYACLTNLTFAEIETKYNQQNYGVFKNDLANIVADFLENLQQKISY\*LNSPELDIMIDNSCERANDVANQNVQLVLKQMQLK\*

>UUR10\_RS03280 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MRNNLSDLEIEKLTKTLVSKNKRVVALYGVPENASYKLMNDLISLMDVEIPN\*SSISSATEDQCINDIKNFLLSNASLENFKNLPSNSPLIN\*\*KKRRLNTVVKKIEEINSAFADREITSRSKIFLMPVLTAFSTLGTTLAVPLISVTFLRGDAIINL\*GKSGYIAFLSLLFSLVIAVIISAFVALFSSLKNNKRNYIVSNMTEGFKRIYDKYFIDGNSEERINAKVTFYSRFLERSKLVVQNNYSFFYDVVDINSEQYPKMLKYFKTLNQLNNTVIFDASGFKYLDERKIFRNIIDPEKTNVVRLDRYKTKTSGRRLMNFIFYQLSIIANVNTRKLLQKFPFFVNSLYRFLDYSEKNTELLTLLLDLKKHASKTQVPLDDESQLFFVDFFTFVVFKALDESGFETLINDLTVYGRPSEITKKNITYNSLKLDYIINRNARNFGQQALLFNLLDYFDETGNKNIFNELGNSNKNMIFSKNHQLSLANEALSKKGFTKREIDLNAH\*CDALYSNLHDDEDMFVKVIEIKENIDVLSALDEVFVRAQNENVKNLLIYVFNVKMLYCLIDNEYELVNESII\*

>UUR10\_RS01600 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosome-binding factor RbfA

MANEVRVARLESLIKDVINNALANEINDKIAKLARVTAVRLSNDLSVAKIFLDAHKRESMPKVLENVNKVSGLLRSKLAAE\*TSYKVPELRFVIDETIDYANHIDELFKKIKQQEN\*

>UUR10\_RS03155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S6

MAKYEIMLVVRGDLDQEQANKVANELKATLKNTEVKENNYEGVQQLAYEINKLKTAYRYVYNFETTDVSLINEFRRLAIINKNVLRHIIINLEKDYGYKATVNAKKVQRNEKRAEVYVRQKEEAERRAAERQAAYEAMKAEREAAGLPVKEFVKGANSKR\*

>UUR10\_RS00115 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

LLTSFIFLFNIIYTNKTFI\*QSFYFQKASSEEVFLLFFYSPIILLVCGVGLVCSGFSLQSTTRNGLAGPSTLGIFPLAALGSILSQLITKSFSNIFIGYAFGIVFSLIALGINFLFIKMTPHKKTFKPILFGFSLGAIITAINVLIANFHSSIVASPIQLLGSVGVYSSIERFYIGVPIVFISTIVLLCYAKKIQILYTSHYLAKSLGININRMY\*ITSICSIFIAISTTFLIGGLSLIAIVMPHLSRLLFKRTNYLFQMIAAIFLTCILLQLLGLVVEFFSKFNIVFLVATVLAIPMIVLLK\*ELGWKVNKN\*

>UUR10\_RS01405 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 TetR/AcrR family transcriptional regulator

MSTRTLKISKVKLKIVDALFNLLKTNAFDKIKISEIIEVANISRPSYYRNFDNKISIITYFIKNIYN\*NVKNKLINAKVNKKFDEHGFIKFYEASLQTSLEFKDYFLILDKNNFSGLIVDLTTENGFYAIGNMSNNSIDKYIINHLTGFFCNIRMQ\*LKNGAKESVHDMAMFLVSILKDNVIEKLKKYNCHHDNDDEE\*\*

>UUR10\_RS01550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex dimerization subunit type 1 TsaB

MNSLYQLFIDVTSKKCVLAIYKNFKILANIIVETNNNLTDIIVEHIIALLKAVHLKYQDLDAIYLDIGPGSFTGVRVGAIVAKTICTTHNQIKLFINDSLNIIANNKNNVFVHLDAKGNKSYTISIINNIQSDYRIITNEQLQIELKNTSLTIIDANQVDYHNLIYNLKFDNFKLTNILDFDLNYVKKPLS\*

>UUR10\_RS00055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L7/L12

MSKLTIEQFIAAIKEMSMLELNDLVKAIETEFGVSAAAPVAVAAAPAAAEAPTEVTIKLVEAGANKVGVIKLIREITGLGLMEAKTAAETAGSVIKEDVKTEEANEIKKKFDELGAKVQLV\*

>UUR10\_RS00920 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphate ABC transporter permease PstA

MSILNLNSQQTKKIIFNKKIKDKLAKTLVISFA\*LFSICFIGLVVFIIIRSIPGFEAYGLKNIF\*SKNFNLADYAAGSSV\*FPLAITLLVSFGAIIIAAPIGIKTATFIKFRIKNKRLQKFFRVTILALAGIPSVIFGLFAIQSLGPAISFVFHIDTVQNITTSMFMLAFIIIPTIISLTLSTYDGIDMRLIENGIGMGSSYTRSIYKIFKKEARGGIIIAIIIALGRAIGETMAISMILSDQGYQNIFGTGFLQIMHSALRPLGAVISANMFAENGGEGLRGLLYVYGIVLFVAIMILNGLVTYLTRKRSKKTYA\*FIKLEKSLAYIVCFIPDQLKILYEKITHRSQYKLHVNNLDNLNNYITDRIQNRKLKRLYTIHKLFFESLAFMVAFAFLA\*ISLDILVNGIKAINLPTSTVVAYTKNTTGQATINTLIIIIVAILIGLPFSLFVAIYINEYAKNK\*PKKVLLFFIDSFGSTPSIIFGMFGLVIFIEIFGFTSMGNIGKSLLAGALTITLVVLPTFTRSIQQSLKAVPMSIRENAYGLGCSK\*ETIVKLVLPQAKKGIISAIVLTIGRIVAETAPLYLTAGLSSAQSITILNPGQTLTTRIYAQLYENNTNIAHNVMYESAFITL\*LVIALIIIAHVIVPYFEFIKHDIKKWFKILKNYLRAPYMRDIKVFKPQIYQKHLYLTHNQAKIMGYNESVNKVAKIGLKLYEIRYVDDEQIQKELLKVRG\*

>UUR10\_RS01765 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LKTILIVNKSFQKKRIFDTRFLHDSGPIYTNDRFLKIVRESFDAHINKKSKFLFYFME\*\*FQTTNYKLNPEISHTKRSLRS\*LIEIFFLFCIIALIVCILAGVARPIIDCVIKSITLSRGQFKGDLIIDGQVIAKGLIPSSASGLVGGSSILNVEQ\*ELIPKV\*KTYFSSPSVVVLILLVLFFLFFSCLYIYMLKKIRPRTNKMSLEDYLVSRMNLINSFKFILKRKVLFVEGIKEYNHRFIFNMSADYNLMRLMNYIYSGLVELNIIMVVDFESDEKIFELQKIIKQDFDNLDLIILEKEVADKLKSIHQNGCLNSKNPSLINISNKEIDQNQEIQNIEIY\*

>UUR10\_RS00625 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HAD family hydrolase

MTKKLIVFDFDGTIMHTHTTMSLSIIGVLEFYNHHVPSLKEMNDLLGNLSMANIFRKYAKHDLLDIEIETMIAKYYEIYESSLFMIHSYFFDGILELIKKIRSIDNVKLAILSNKKSTLLTTMVDYYNLHHYFDYIYGAEDVDQMKPHPSGLLRLMNNCNVDHKNTLLIGDSLADLKAALNVKCHFLLVN\*EPEYQKHKETIANLKPLVVQTIDELETEISQFLR\*

>UUR10\_RS00695 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase F1 subunit epsilon

MANLTKLKIVTPYAQNLEKDVYSVELKTSEGRIAVLPDHNPLMSIIENHVAYIRELPNAPRKPLLLLDGIVYVEEHQVRVFSDYFKFLDEIKIDEINSLLNKLKNDLANEEDDKKKLQLKSKIKLNESILIAYKDR\*

>UUR10\_RS02245 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-formamidopyrimidine glycosylase

MPELPEVQTIVDYLNLNVLNLLIKKVIVHLPKILKNKTPAEFENLLVNHKITNIKRLGKYLLFFLDNNLVLSVHLRMEGKFYYQPKDE\*FNLAHTHIIIEFENGMQLRYNDTRQFGTFHIYEQESFLDSKELKKIALDPLDANFTPQYLYEKLKKSNKAIKTALLDQSNVSGIGNIYADEILFATKIFPTTLAKDLTIKDYENIAKEAKRILLLSIQNKGTTIHTYKFGNDETGMFQKMLLVHTHAKKPCQTCGTIIQKTKVNGRGTYYCSNCQNQK\*

>UUR10\_RS01180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L18

MKRINFSRAKQRALRAKRLHVKIRNLQLAANKPVLVITKTNAHI\*AQLICYNKNITLASSSSVQLDLQNGNKDNARLVGADIAKKALAQGFKQVIFNKNGAKYHGRIKALADAAREAGLEF\*

>UUR10\_RS02145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MPLITGALGIWNKVLFGTIIANTAISVIGGITNIAMAASTLPKQESETIETIDVDMTTMVGAKTPYANIYYLGS\*

>UUR10\_RS01220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S13

MARILGVDIPNDKRVVISLTYIFGIGKSTSQKILKLANIDENIRVNDLADEQIAEIRRVALNFVKANGEKLQLEGDLRRTVAMDIKRLMEIGSYRGIRHRRGLPVRGQRTKTNARTRKGPRKTVANKKIETR\*

>UUR10\_RS01315 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HIT family protein

MQDCIFCKILKGEIISKIIDENEFAIAILDIQPASDGHILIIPKKHYRNFSLTDPIYLDGMMRLAKNMTFVLEEVFPNVLGFNYLMNSNSGAGQVVMHTHMHIIPKQNNDRGFVFKAIKEEGDISDIDEIYKKIATKTQKLKKSRLSKHYMV\*

>UUR10\_RS01000 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L21

MFAIFQTGGKQYKVQQGEKIYVEKLDLEVGSKISFDQVIMVEGSVGTPFVKNAVVNATVLKQGKQKKINIIKFKSKKHHLKRQGHRQPYTQLVIDSISVK\*

>UUR10\_RS01160 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L5

MAFLKDLYKNKVAKDLQKEFAYSSVMQIPKIEKVVINAGIGNAVADKKHLEAAISELTLITGQRPVETKAKKSIATFKLRAGQSIGAKVTLRGDRM\*AFIETLFNIALPRVRDFKGISNNSFDDQGNYTLGIKEQIIFPQVVYDDVKSVRGFDVTFVTTAKTAQEAKALLVGLGAPFQKVRGDK\*

>UUR10\_RS01710 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 (d)CMP kinase

MKKYINVAIDGPSGSGKSTAAKGLANKLGFLYINTGLMYRAYAYFLNENNLDINTNETACIEAIKNARFIFNGDDVKIDDQDVSDILRSNDVAMLASVVAANAKIRNLATNEQRKIASENNVVMDGRDIGSIVLVDADLKFYLNTSIQTRAKRRLAQNKDIEKLDYESIYNDIKERDYRDMTRDIAPLKKAIDAIEIFNDNMNLDQCVAHLYEIYLNKIKKS\*

>UUR10\_RS02270 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA 4-thiouridine(8) synthase ThiI

MKPIIYIKYGELTLKGKNRAQFIKVLVHNIKQMLLEYHELVYQVGYDNLKIINLEKYNLQQVINDLQQVYGIAFICVAYQVNKEINEIQLACNKLVNNTDQTFKIEARRNDKSFIYDSMQIKQICATYLLQNQPTLKVDVHHPQLLINIEIKHDCAIVYGHKIPGAKGLPVGINGKALVLLSGGIDSPVASRLIMKRGISVDFITFITPPHTSQKALDKTIALAKQITLNNHLTKANLYVCNFTKLQEEIAHISKESYRITLMRRYFMRIAKRLAIDIKAGALVTGEALGQVASQTLNSMQTISSVLNDFLVLRPLITYDKQEIISLAKQFNTYELSILPYDDSCSLFAPKNPTTNPNVQTAMKLEQESLVLDAIYELVFTKEITKINLSSK\*

>UUR10\_RS00505 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MNKKMNFNSSFAYVGFLTRHIIVKKTTYILPIITFLITLIVGIIVGCVVNQKSQFLIISYVMIIFNLLMTTIFASLKALNVFKDFSEDGIDILVISKPISRKNIV\*SKIFFFILTGVVWSLISFLGLLIFYLISFNFAKDVNYY\*LLSYISPFICYLVFGLLTSLLALKLNAKISVLIPLVSFVPLLAVGIVSNIVSQLQSKAFLSSLKQKPTNNIEPFYLNNNLDQYYLINTGFANHEFKQSQNLEVLDAYLKTRNLATF\*QVSS\*IFPIYQLVDAFNKSDYEPFSDFIKNQENHKVLYANNLASKQFNYRLEKNSDSLPSFNINNDKGFLVPSLLKNDSQNLINNNLNQEVIYAIED\*KNQTIEYQKNSYTQLSADDIVGSIK\*TIIKEVLNTKLFNEYANNLFKTLDKKASKKQILDLISNSVQKFDFNKQIDENTELFKKDVNKLLIKSKTERQIYLAISLIYYLYFSSNYTDLLNTLLFDQKNHLQYQTQFKINLNNKNYLIGGFKNYLVNQILPQETNDAIDQSKKDKKIRYKYSLEQGGNYLFDYVTQNYSIKREQQIVYKEVYCVI\*LVLIFSLLIGTYYGYKRKDYR\*

>UUR10\_RS00815 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(+)/NADH kinase

MKDVKPVYFYDIYCFNPNKCTEDKGVLLLETKLKEYQKVTFLRSEQKPQIVFLLGGDGSFINFVNQQ\*KQN\*KIVGINYGQLGFYSSYDGINTINIDEIVDESMYANAFLIEVNINNENKFYCLNELSIFSNELASCDISINNTFYEKFRGSGLLFATPSGSTGKNKVAHGPIIFNNQPCFSMLEIFPVNHLKYSSLNAPVVFGKDYQISLTNIKFKRTLNLVVDGNNINFNNKIDFIEVKLIQASLQIHGLNNYKKYIERLRRSFIKEE\*

>UUR10\_RS01100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L3

MKSLLGTKVGMTQVFTETGKAVAATVIYVEPNKVLAVKTNEKDGYNAIQIGYETVKEKALNKPLLGQFKKANSDPKRHIKEFRDVVAEVGAELTVSEFEPGQLVNAQAYTKGHGFTGSIKRHNFSMGPMGHGAGYPHRYVGSIAKGRGGSQAQRVFKGTKLPGHYGHELVTTKNLLVLDVKANENLILIKGAIPGPKGSIVLLKSAKKVGHIVSDPQVVNYLANKASSSEANK\*

>UUR10\_RS03075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 energy-coupling factor transporter transmembrane protein EcfT

MSANAYVFRRSPIHRLNPAIKFISFILLIAMIFLPLGFFAQMIIGVFILIIFFVAKLPKKTL\*NVFKSVIMLFVILLLIN\*MTYKDPIAIYNITDQAKVILGDKD\*INGPINKNLSFSLIYNDISSTHVQNLVSNIWGGEIKNYISPEIIKKLIDKPDYNVAKFLSENNITVKKLASTFNALNQDVRLNNYYPIYGDAVLRSGKVEVPLSHLSYYMSTNL\*KIEGVKYQGLILSGVGDQLGKAETALFYTRSPFALSPVAIQLAIYISIKIFLMITLSSILTATTSSIELTNGLEDLLSPFKILRLPVAEASMMISIALRFIPSLLDESKRILNAQASRGVDFNNGGMLQKLKSLISLVVPLFSIAFKKAEDLANAMEARSYNPRYARTRYRAFPLNLTDYVLFGILCILVGFLISLAVIKFYFTPFGAFEASALFAK\*

>UUR10\_RS03275 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF4011 domain-containing protein

MKKAIKQKLMNLVNLNPHDSIILTRLSSSRNIDLFKYIKKEDLISFVNGEISYIELNVGKNLNLFEESLKNSLNIGEFLEILVNYNVSLPDNKINLLQRDFHANKKKVIPLAIEQLLAFRKKFISINRLAKNYFEDTTV\*PLYFAFNFLKGKLLPNDAFKSPLTLFKVEIREEADKIFIAKMQDEPIVNEKIQIFLKKGYQDFKVETTELLTNYELSSTIKMIEDMTGQKISVNENEFVPFMNENEAQILDRYTTFEVEPSAMLGLFEPDGGALKADLHKIIEMDVDPFESENEGLNKPVEYYEEKVIKEQAVVEIGRPLNIFQKYAVASSLSQNTLIYGPPGTGKSEVIANIIFNVLLKGKSSLLVSEKRAALDVLTERIGSLSQFALYVYDLTNKETFFEKISNLNDLLGTQ\*YREQSRSTKIKEIEPIKFTPEESMFFKNYED\*NAELLHLVKKH\*SIEDYNDGIYKMDYADYIATKNELGEQIVKE\*LTPQQFNDESEKRSTLFEEISAIFNEYNLLKIEDLFSAYLRFTSFIKKYKLTDTYSSTEILKHLKMITNKIQTNDELVTKFLMHSNRITKDIDNYYNFLAEHNLESNSVFMNKSIRDKRIFIDKIGDYLKFRKDVIDKDFSLQSKTTQQLNEIIDICDNFFTKHKKLLVKNE\*YDFLVKNKDRISAFLSVYNNASEENKQIIFAEFITNGTIINNSDPSDESTLSLKEIKTRNRDSQEVIELFVDFLNNVEYLAKPKMDQIASYREFINQDVDFLSKLHTLAEIYTPIMQDIIRE\*S\*LSLPYIKTLYLEPLMLFDLEKVGKIMKHVSTLITHEQFKKLKVVVL\*DEITHIIPMFSETKGRLLQDIIVQLRRESSRSARIVGEIVFKKYINNLRNYLTKLPQQEKDEITNALRIASSRS\*PSISRYLSKYYNALKRLFPI\*VARPDNVASLIPLVENEFDYGIFDEASQMTIERSYPIVYRCKIKVVSGDDKQLKPTSFFINKLVDSDFEIDDFDKVDSLLERAKTS\*\*NEYHLKNHYRSDSKELIEFSNKYIYNNNLEVATRQGAFEKGIDVINVNGV\*EKGNPLEAEQTIAILIDN\*KKYEKILIVTFNAVQASLVENLLFERMSMFEKGLCDKIENNEIVITNLENVQGNEGDLVILSIAYGPNPEGNLRNNFGPLNAKGGMNRLNVAITRARKKMIVIKSLYGHQIQVSNLNNQNALTFKRFIEYIDRINGELSISDTLESLEQQTYLEFDNDLVKEIYSELTKKLSNKYQIFPN\*NIGTKKIDLVIIKKETKEIVKTILLET\*KENRSVQIMFEDIDRQYFLEDRGYSTYRIKEYE\*YIDKHKIVSRINDSLSSNNNSNKIDYVL\*QQNNF\*

>UUR10\_RS01185 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S5

MENNVKKETIVDSEKVEKQQPVTAPVVNKKENTQPKAKTFKRETTTSNFEERVVKIKRISKTTKGGRMMRFSALVVIGDKNGTVGFGMGKSIEVPDAIKKAIKNANNNLIKVKQTKKGSIYHDVNGRHGAAKVMLLPAPEGTGIIAGGPVRAVVELAGFTDIYTKSRGANAPMNVIRATINGLLQQLTPQEIARLRDKSLKEL\*

>UUR10\_RS01570 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

VKEFSKNKTYNNFKNHKSPLRVVEGIVREIKNNELQIDFVDSYKKGICKFINLTDYN\*NTISSRFLINSKHLFLISKFDPTRRVY\*LNYKIIHPIEIKNKRRSYPTLSHDRNLRIFLTNLLENEDKEHNNHEIN\*

>UUR10\_RS02275 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MPFIKTPNKDFELFDNQIVLSNDYKKRYQRYFAKITGSRLGAILNVGDFANPVKT\*AMMVKIYNEPIDPIYAQAGVIIEPKIKDYVESVLKIKYKQYEPAQIGYDVFKDNLIFGGIPDGEPVDENGELLYPNQPMLEIKTTSIDSFAFKTIDYVLVLQKDEFNRPIVKKKGDKRAK\*FNSDESQVIISEDYKLQLGLYCYLRKITKGIFAIAFLTSEDYINPQSFDINKNEIILVNYEINLNEFEKVISKAKTWYEEYIIKGISPKLSKDDLE\*YKV\*VNKYETNNLY\*

>UUR10\_RS01115 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L2

MAVKRIKNHSSGKRQTVVVDYKSILTTSKPEKSLLVTLPKKAGRNNQGKITIRHHGGGHKRKYRIIDFKRNKDNIYGTIKSIEYDPNRTSFISLVVYADGEKRYIIAPKGIKVGDKIISGNENIDILLGNSLPLEFIPEDTLVHNIELSPNAGGQITRSAGASAQILGFDETKKYILVKLNSGEVRKFRKECRATIGTVSNDEHILENLGKAGKSRHLGVRPTVRGSAMNPNDHPHGGGEGRSPVGMDAPRTP\*GKRHMGVKTRNNKKSSTSMIVRRRK\*

>UUR10\_RS02180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA 2-thiouridine(34) synthase MnmA

MEVNTKKRVVIGLSGGVDSSVSALLLKQQGYEVIGLFMAN\*DTVANFENNRESDKKHQGCESELDYQDAQAVAQKIGIPLYRVEFIKEY\*NNVFEYFLSEYQKNRTPNPDILCNQFIKFDSFLNYAKNELKADYIAMGHYAKVKHTNNLSYLLKATDVNKDQTYFLCNLKQTQLQNALFPIGDLTKQQVRTIAKEYGLVTANKKDSTGICFIGERNFKYFLENYIPNQPGEIVNIVNNQIVGHHMGTMYYTIGQRKGLNLGGMNERMFVCEKDINKKIIYVSPLSLEDQYLISNQALVENMNFIEPYNPQIPISVRFRHRQNLVVVNSFLCIENTNNVLINYEPAKAITPGQYAVFYQNDHCIGGGVIAQTNANHKKINF\*

>UUR10\_RS03200 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MKPKNNRYTYIKYLRSQRAFVQALKPQVLVEPTLNNNVHLNEQQVDLLPQLTNLENTNESVVNELVETKSNEEINIQDVINLEQKINYENNNSQNQDLDNEIFATTLINEQASGINEVSEQKQESPKVSKKHKKQTMAFKVANSRKNFDFEKFEKNVKYKTFKDGTVKKIAAEIDNVRLTFTNPSKPEDRALVLRNTSVQFYEGEVHAIIGESGSGKSVITSLLYGLAGKNANVEEGRILLYNNEVQDFSFKD\*EKSRYLGKVISAVFQNPMSTLNPTMKIGKQIMEGMLINGIVKTRKEAYKKSIEYLKLTKINNPEEIMELYPHELSGGMIQRVVIASIVSLHPKILVLDEPTTALDPTVQALVLDVIRELQEKFKMCIIFITHDLGVVASIANYISIMYAGQIIEEGQRDEIL\*NPQHPYT\*GLIMSMPDVNKGDRLATIKGSVPSRLNEIVGDAFAIRNDYALTRDFEHEPEMYYVSETHRVKSALLDERAEEYTPPQIILDK\*NSFKQRQENKNNQ\*

>UUR10\_RS00435 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 CinA family protein

MNVALELINLLKEKRLKLSVCESASCGALSSSIGEVPGASSVFVGGFISYSNEVKIQIVGVSEKTILKYGAVSEQTAKEMCLQTNQKFNTDIAISITGNAGPQGSENKEVGLFYIGIAIKDFAIVKKVILNSSERTFNRFSIA\*EAISYLIELIKK\*

>UUR10\_RS01450 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQYITINNAKTGKILISKPNIKKFIEQKFNLIVNKKFVIKSIDITQYDESLVDISIIIALFDEHRKVDLDEVRDVQNHLASFIYSNLGVDTKSVNIGIDL\*

>UUR10\_RS02190 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transposase

MDKKNIFTILEKLIKKYEYLYKPILDDYISNFTRTFLEYILTIEMKYHLNYERFERYLSNSSRNYRNGFSKKQLHMNDLKILVNIPRDRNGAFESKIISKYQVDISRFEYRLLSLGINNLQLNEYEKILEDFYDIYNDKTIDKLRNEIALKVYDYLENKKQELNNIDVDQIFIDGFSLSTNRYLTIVITKSLDKQLTILGF\*VINNLQNK\*WNDIIAKIAMHHPQVISYKILFKNDDELLMSLKNHSSNDFERARFIFINKRILK\*

>UUR10\_RS00025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 L-threonylcarbamoyladenylate synthase

MKIYRITNLNAIYDALVANKCVLIPTDTIIGLLAKNQDVIYEIKRRDRNKKIVRFVADYKLLGDLTVEQEQFLDLF\*PGSVTVIKNGVSYRMPNSPYILKLIQKLGPLYCSSANISGEEPVKNHNEAIFKFGANSKLIYVEAQQQIGVPSTIVDIDK\*EYVRRGANIEMVDMFIKELKYNNTKEKE\*

>UUR10\_RS00350 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphotransacetylase

MLNVVNKLKIKLENLTKKPLKVLFIEQSLEIDKAKQILSQNSLINIVDLASFKTPEIINECENIWYELRKSKGESQKDAQLAISNDLNFAVCLSYLKKIDILIVGANLSSKTCFSSILKILKNPNGSIACSTMAMASEQELIFMSDCALNLTLNKDQMIDVAKHSYTIAKKYFEVLNNHAAYISYLSQNDVLYQNNDFDFIGPMQFDAVVDLRVRNKKIINSHQNHINHYVFDNISIANTIFKIYQTKLHYLTIGSYISNILTKVSVISRSASVDEIVATTYLLCVAFLVDLF\*

>UUR10\_RS02300 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF3196 family protein

MNAIIIPKNILIKKVVHIILKTKREVVKIMNNDYKGHIKKYFDDILKQAKQVLQKRDYGYAYDLISNEFNNPLIDLKTLQEFEDFALEIKKSAELDFIDENEAKLAKTEFYHKIHDPKTTYVSLAYLETFLMRFINEIDQLDIAFLNNLLSNKTINGSTKLDILDLLAVNNIDQNFDFYNKYLKQSKSINPTNPSEHHLMVVQIQNYLNNDLAKNPSLLNLANKLLMMYITYHFPFAFTHDPNIIAKTIIDYTKSAMSDFECEYNQQQKDIVACINKILEEEQE\*

>UUR10\_RS00790 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LNYQTVAFEQVPSQKSEPKEEKQTKAVDYEKAIKDEDYVKQITLSNLEKYISNEYQYLNPNNKTLDYKNHNFVQKFLDEIDVLAQKLESNDLNLEDKQIYEKIILGLR\*LLAEDNNETKNKALALFKDYFTTIMKATKVNDKVHYDPSFINEFYGSMSNLFEEYNLEPSVEIESNKIRIIKEDKDVIKDKTVTATFNLYNGFD\*PTLLKDVVFKEYKKDSEGKVELKDGKPVETDKIIEDPVVMRLQIAEYPKD\*KTSEKDPQNYSYVDFKKSEVLKSPKLVFTKVFNLDKEQKYHVKNVMFSHKLIPNLLKAFNIENKGNNTQNELSAKIKSNLTLVDEKTQTNLNTNYIPLSLTETNNKK\*

>UUR10\_RS01125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L22

MTNKVIQRNIHISHRKASLVIDLVRNKPVHEAIRILSNTPKKFAPIVLKLLNSAISNVQHNSKDMDPSKLYIYKIVANQGPTMKRTLPRAKGSADQLFKRTTHLEIVLSDDVNEREKELAAIKAKKSKKPLVVEPVAKVETKKVAKPSKVETKPVEKDENVDPELLKREQQVLKVVEKTASQKEEETTETIMISTSPKNAQVLFDDLEKNVIFYKTTPVNKVLRVLVYVTSPTKKVVGEFDLESVEIGAISSI\*RKYNKQSVISKKEYDAYYEGKDKAHALVSKKAYKYRNPKDLSEYNMTKGPSGFQYLK\*

>UUR10\_RS03095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L11

VAPKKKEVTRIAKLNLIGGQAKPGPALASVGINMAEFTKSFNDKTKDQNGKVIPVIITAYKDKSFDYVVKTTPVTYLLKDAAKIKSGAKDPKKQVVATISKEQALEIARYKLVDMTAYDEEAALRMIAGSAKQMGIAIEGVSAYKEKKGN\*

>UUR10\_RS00090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA uridine-5-carboxymethylaminomethyl(34) synthesis GTPase MnmE

MSTIVALATAPMNCAIHIIRISGPQAFEMINKISTTKIKKETFKIWYTTLKDNDQVLDEVLVNTFVGPKTFTGEDLVEINCHGGVIVANLIIKILIKYGCQPAQRGEFSRRALLNKKMDLSKIEAINNLVNAKNELSVKGVIGALLGRVSQSISDFKHELFMIIGQIEVNIDYPEYDDVEQVDAINLKQRLLVLNEKIKKIIDQSKKFLPINKGIKVLIIGKPNVGKSTLLNALCNEQKAIVTDIPGTTRDVIESSINIDNITLNILDTAGIHSTNDFVENLGINKAKELINKVDLVLYLVPANNQQDLELYDLIKDQKHLLVYTKKDLIDQYSDDQIYINAKDNDIQALIDKIKELFYVQEFDNANIDVLQSQRQIGILENVNYLIDNAITNLEKGDTVDLVVADLEFCNLRLNELLGIGSEYDFLDDLFKNFCVGK\*

>UUR10\_RS02150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQKMSNNFKQEYYGGFAASNSFNYM\*NNALISSMLGQTVVGFFGMISQLVYAFNPQPRFHAHQMVDNSAARTYARIAQKPMNSTISLGSPFF\*

>UUR10\_RS01135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L16

MLQPKRTKFRKPHKVSYEGKAKGNKQVDFGEFGLMALEGA\*IDARQIESARIAISKRLLKTGKM\*IRIFPHMSLTKKPLEVRMGSGKGSPEK\*VAVVKAGTVMFEIANVSEELMREALRAAGNKLPIKVKIVKKGEAN\*

>UUR10\_RS03065 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DegV family protein

MKKSFLIMTDSSTTLDRE\*AKNNDVMILPLSILRSDHTLIVDDGIESKPERIYQDIDNGYSFQTSCTPYGVLIEAIEQKLQEYEKIIFIGISSGFSSQFNNAKNLEKEYENRLFAVDTEDFGYSLEDLVYKIKSMLANNISFDSVIKMIDEHHNYTSSFLACENITGLVRSGRIPKIIGTMLKLSKVTPIIKAE\*KNHRAGMALNIRSAPHKILEGISHVFDDQLNDQTIEKVCILQAGLSNERIEELKKAVIDHFHINEEKIVVRSGPPIFLVYV\*KGALGIQVMANIPKKHVEKKH\*

>UUR10\_RS00175 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SocA family protein

MKEITPLIVAN\*FLTKESMTLKKVQKLVYYAYS\*YLILMNEKVDDLKNKLFDEKIKA\*VHGPAIPMLYNEFKEHKYNSIPKINDFNEQEYFNLDTIDILNQV\*DEYGHYSANQLESITHQEDP\*IKARKGFGPLDSCNAVISDKEIFSYYIKQMKIN\*

>UUR10\_RS00300 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecG

MALTIVLILFSVLALVIGLLLSRTSPSGGLSSLNGQDLEIFKKTKDRG\*IKGLQVLMFLLTIVMILIIIFYRVS\*

>UUR10\_RS01035 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ammonium transporter

VST\*GLNKDIYFSTHELT\*VPADASQSTLDAIGFNPTNTLLVALAIAFVLLMTPGLALFYGGLVRRKSTLTIINQCVASLGITTLI\*IFGGFSLAFGPSVGKGIIGDISTYFAFRNLLFADG\*SGGAVLVFANFTNGVPLILFFAYQLAFAIITPPLMVGAFADRMKFKNYLVFLVL\*QYLIYIPFAH\*I\*GQGFLAAAGVIDYAGGIVIHTTAGFGALAASFMLGKRTMLVTDKNRANNLPMVVLGATLLFFG\*FGFNVGGAGFVKDSSNHISQAISS\*LNTIIALAIGMVG\*ITLETIVNKNHKPTTVGLVTGAIAGLATITPTAGFVPI\*ASVPIAIMGVLVCYSIAKLLHHFHFDDSLEVLPVHGMGGVVGSLLIGAFATDTVANGIKYNAVGLDSSGNPVYGLLFGLQLGAVALAIV\*AFAFTCLIIYISKPRLSAREQLGHIDYINHGEDAYKFDFLIPSEDEMASYEGFDQV\*EQKVSGCKKADLASKLVPVFMEHESDCT\*QSKSRECTKSK\*

>UUR10\_RS02210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 molecular chaperone DnaJ

MAKRDYYEVLGVSKSASPEEIKTAFRKLAKEHHPDRNKSADDTVFKEINEAYEVLSDPKKRAQYDQFGHDGPQGFAGAGGFSGFSDGFGGVDFDINDIFGSFFKNGASSRSSSSQYETYDIHLRLHLEFIEAIKGVSKNISYDRKITCNKCQGTGAKDPKDVKTCTKCHGRGTTIENVHSLFGTIQQEVECHECEGTGKVANSKCEQCYGKKVINERVNLTVEIPAGTQDNEKLVVSKKGNIINNQEFDLYLHISVKPSKYFAFDGLDIYSETYVDPIKAIVGGVIEVVTTSGIKTIEIPPNTPEGKKFRISGAGIVNKKPNIFSKKNGDFYTTIRYAKPLELTKEEIAYLKNISARTNQSVEYYKNKLLKEVNK\*

>UUR10\_RS03105 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Asp-tRNA(Asn)/Glu-tRNA(Gln) amidotransferase subunit GatB

MQNFEVIIGIEVHTALNTKTKMFSNTPTSHKSMANTLINEIDLALPGTLPSVNQEVVHKGLFLANALHMHTNHQFIAFDRKHYYYLDLPKGYQITQNYFPIGQNGYIQITDENNNPKKIRIKQIHLEEDTAKQTSVNNQVYLDYNRAG\*PLIEIVSEADLRSAQETVLFLEELRKILLFNDISDAKMEDGSLRVDVNISIRPRGAKSFGTKVEIKNINSISNVAKAINYEYNRQLNLILLNQSVEQQTRRFDDSTNTTVFMRSKNDAINYRYIRELNIAPIYLSDEYVSQLLSTKPYSINDLRQELLQKGLVSSAIEQLLGDGPLFKAFKYVNKIVNNPSSVYK\*LCLEFIGLINKNTQIIEDISMELLQKIGAMIVLFDQTLINGKQTKTILEKIYLTNKDPQTLIKELGFEQITDENEITNL\*NQILANNQEMLLQYEERPDRVEKFFMGEMMKLTKAQANPTISFNILKKILQK\*

>UUR10\_RS00555 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine--tRNA ligase

MFDINLIRKDIVVTKEKMLNKKVSSDLFDQIFGLDVLVRNLMQQEQNLNAKKNQLSKEIGILAKNKDPKLQQTLDLVNSIKSELQDISLTLSNKQDELNKLLLVIPNMPDDSVPIGNDENDNVEIKKVFEPRKFDFSPLAH\*DLAAKNKLIDFDKSTKITGSRFIIYTNFGARLYRALQQFCLDMNVKAGFNEI\*APVIVNQESLIGSGNLPKFVDDLFKLENSNYYLSPTAEVQLTNLHRNEILKASDLPLYYTALTPCFRSEAGSAGRDVRGVIRQHQFHKVELVKLCKPEDSFKELESMTRQAESILEALELPYRRIALCTGDLGFSSAKTYDLEVWLPSYNAYKEISSCSNCTNFQARRAKIRYKETVDAPTELVHTLNGSSLAIDRL\*AAVVENYQQEDGSITIPKALEKYIY\*

>UUR10\_RS03040 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cytidine deaminase

MKYNDIYKGLIELLKKSYSPYSNYPVAAYVDTDIGLIPGVNVENGSLGLTSCAERNAIFNAITNGAKVFKTVYVITKNNGDIGSPCGACRQVVSEFLKKDAKVVVFNNDGTYKEYSVEQLLPFG\*DPNVSL\*

>UUR10\_RS01485 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription elongation factor GreA

MAKYTISKHRLEELQLELREILDVK\*PAITKQLQDAREQGDLSENADYDAAKNEQAALKKRKDEIEEILENYELIEDVMRSTDEVSIGSTIEIYNYQKDHKEVITLVGSMDSDPFANKISMDTPLGKAVVKQKEGSEVTVHTLALPYKVKIIKIID\*

>UUR10\_RS01745 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RNA polymerase sigma factor

MSTKQNEPLFENLEDLKQKVKLSFTEEFSFSYALSEREAGIFESRNLKGADASNPEEILLNVVLDVSKRKRSRNEIKFNKLQNYFIHMNLRDEHFSEIVDVLENIGIRVPDYELVMQSKSKSTAKKKDEYGIDDTLEISTSKIGFSSTTTEKVDDGIKAYLGVLGESKMLRSDEETEYAKMVISNDPALIKIGKNQLYTSNMRLVTSIAKKYLNRGLDLEDLIQEGSSGLLKAIDKFDHEKGHKFSTYAT\*\*IRQSITRAIADQARQIRIPVHMVETINKLTKAERSLIQELGRDPTAEEIAQAMNKASQAKNQKEQLITAQKVVEIKKLNVDPVSLDKQIGHDEESQFSDFISDDEIISPEKYTEKKALNDQINEMFEKVLNDNEQRVIKMRYGLLPFERPYTLEEVGEHLGVTRERARQIESKAIRKLKHPSKTAKLRSFIGESEN\*

>UUR10\_RS00400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HPr kinase/phosphorylase

MEIRGKLFVSQVVRKFNLNVVANSDYIDREISTTGITRVGFELAGEILFKEI\*NIVYFGSKESNYFSKFSETIISKKLGKILDLNPPLIIFGKNFKHAGILLKLAERYKIPIVEVKYSFYELNFTINTYISQKLSHQSLVHGTLLSIYGIGVILMGESGVGKSELAIELVKKGHIFVGDDAILVNRIGGNLYGRAEDSTKDFIEIRGLGIMNFSRSFGIERMIESTKIEIVIELIKAAKHEKIKFERFGREIQHKEFLETKIAYYYIPVIEGRSISDIIETAITDYKLKTSGYNSAEEFILQIDKKGN\*

>UUR10\_RS00980 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L28

MARRDQLTGKGPLSGNTRSHAMNHSKRR\*NVNLQKATIKTENGSQRVLVSAKTLKTLKKHNLLA\*

>UUR10\_RS01700 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YbhB/YbcL family Raf kinase inhibitor-like protein

MVEDKFLKQIKEGEQIKIEIKGLDEFNNFDEQSYGLNNISPQMR\*SPVLEAASYAVAIIDYEAVGGAPFVH\*YALNIFEPQLELNVANLGYANLYQGENSTSKHFTHSTVDANYQTDVANNYFPPCPPNKAHKYEIKIYAVHHKMSTNRNEILYLDDFEAKLNEAKIIAMGSTYVYAPQISFENNELVVGSLEHKHPYLFTDAKNEYHVIEDVIVDDIEKNVYDETQLNNFQDLEQAKIKIIDSSDALSYAVIISSNHTFKKYGRPIINYAHIVEKKSNKRIKFNNSYKLNHAFSYISPSKYEHLGNELLILKDNDANIESGLFTIHVFGLNKKINQLNKVENPTDSIIDLFEMISGNVISYKAKFFKL\*

>UUR10\_RS00670 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cysteine--tRNA ligase

MKLYDSYSNQLVEINDELISIYNCGPTVYNHIHIGNARPLITMDVLYRFLKKHNIKTKYVLNITDIDDKIINYALANNLKELEVSEYYFNEYLKIKKALNTLEMINPKVSTHMDKIIDYIQKLIDKQAGYFIGDDVYFDTKKALNYGQLSKRDLENDIVGMRIESAANKHNPNDFIL\*KKTNKGIM\*NTP\*GIGRPGWHSECSCLINTYIGEQVSIHGGGIDLKFPHHENENAQNQVLYNKNLAKV\*MHFGLVNINNEKMSKSLNNFILVKDLLAEYDYQVVRWFFYQADYKQPIKFSHEIMKQNEKEILKIKNAIYNAKNYLYFNHQLKSLTQIDHFGFFDERINDDLDFVGIVDLIHISVKKINILIKKNKDMNELKLNLTQLLYMLDILGINFVDLHNDENLALLNT\*KNYVDKKDYVKADELRKQLINIGIL\*

>UUR10\_RS00825 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MLIKPAKRSEKIYTIISIKDSVVTLKNDYQDEKEIEIYEFDLQNIIPEIGKFINLIKYDQQGCSVFEEYDQNA\*

>UUR10\_RS01530 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MDIVIKKNCNFIKNENYLYSFYTPLIGIQATAMYS\*FVNRENIFNKKGIINLTREYLLNELNISINTYNNLITKLVNVDLIKIYCIENNQQQIIEVFRPLNFNEFSNIEKFNEELKNNVSNDHYKILNLLNKENSINNNRLIDLSTQFKTNYSNSFENKLDKIKKIILDEYQLSLQINESVKLSILNFFKKYKFSVNEMANLIKNNLINNIDFLTIDLNKLELSIISNQQVENNKTKLQYQNIERDSSIFNENADLNLFKNVINHYNYFEPSDFLKHIRKEKLSVEDKEAIILLTYDKTLNNAIVNVILDFVLFKNLGRLNIKYLKCIKETVLGINIKNEYEMIKFFQNKKMNQKQLVFNNDDNTNTFKNTDFVEVKFGDL\*

>UUR10\_RS02075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 excinuclease ABC subunit UvrC

MNDLLKTKLKLIPHKPGCYL\*KDEFDQIIYIGKAKDLYNRTHSYFNGPKDNKTSKLVSNIKDLEYIVVNNVNEALILENNLIKTHRPKYNILLKDGSNYPYIMITNEQYPRLKYVRTYDKNKGIYFGPLADSTNKYQLFNLLNSIFPFNKCNHQPHQKCIYYDLHRCINQVQPQTYEKAIAEVKEIFKGNLDHILAILENKEQHAVAKLDFENAQKYAEQQKALTYIINSGLVQLDNNESFDVVGFYEKNNYLVIIIFNYVKGKLLNKSADTFAIYDHEINELITSFLMQYYSQNRISTKIIVSLDDDNLLALSQRFKTKFINAQTKFHKQILKLAFDNAILYFDSNIKSVINKQNELDEALNQLKQILKLPDLSMIECFDNSNINLSLPIAGMIVYQNGKLNNKLNRKYNLMTTKNASDYHFMIEVITRRYQRLVSQHQKLPNLIVVDGGKLQVNAALYALEQLQISIPLIGLKKDQKHKTNAIVLANGDEIILDRKSVLYKFLANMQNDVHNYAISFLRNKHTKSIFNSLLNDVQGLGKKRLNELLNYYDSINDLKSASDQELLQFLPKNVLVNLREKLNKI\*

>UUR10\_RS00015 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 peptide chain release factor 1

MEYNKKLYEAIERVAVKNKTLKQELETITSDFKKIKEINIQLKKTTKIAEAFAKYKQKIDAGIVAEELLNTEKDLELVELAQMDLDDAKASIPVIENELKIMLLPTDPNDDKNVIVEMRPAAGGDESSIFVGNLFDTYRAYTESNN\*KMKIIEMTPNAVGFSFISFMISGEEVYSRMKFESGVHRVQRVPATESKGRVHTSTITVAVLPEQDEVDVVINPSDLRIDTYRASGAGGQHVNRTESAVRITHIPTGVVAACQEGKSQIENRETAMKMLRAKL\*EAAQEQQNAEFANLRKNQVGTGDRSEKIRTYNYPQNRVTDHRISLTLNKLDQIMMGELDEIIDALITDEQTNLMANLGI\*

>UUR10\_RS00475 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 deoxynucleoside kinase

MSDKKLDFLTPSFKKNRISNSIAIGGMIAFGKSTLAQALHEKYQPSNVVYEMVEGDKLMDLLLAKMYERENNVLFGSLFQLYFVLNRFANYKNNCNRENLTIFDRSIFED\*LFAHANIDKPSVFSYYDGL\*QGVCKELIYEHGVPKLYVILDGD\*ELFKERIFKRNRKVEIDNFSINETYFKRLLEMYKNYMVNVCKDFGIDYIVLDARNSVEHNVNEVTKRLQELKNEQNK\*

>UUR10\_RS03180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MDLIFKRLKFVSIQN\*ALLLFSVALFICVGA\*IGHELVRHNLFDAHTLSHEKELLNMLSAKDLKNYLTLKEEIQLSIGFFGLFLVL\*TLTYLISLTVNIRILVKYLNDFNENKTKVKNALIISLIPFIHYASAIFLTIVYDKVFN\*NRKKSHTLQEEYISAYA\*

>UUR10\_RS03535 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L33

MVKKIILVCETCMSRNYQTTRNKFATSRLELNKYCKKCNMKTLHKETR\*

>UUR10\_RS02265 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 bifunctional oligoribonuclease/PAP phosphatase NrnA

MQKDLLNKLIEQTYGFSKISIFVHTNPDCDALGSAFALARILKLNTFGTRVKIVGINTLNPNDFKNFFTFDKNEVEDEFIEGSLAFIVDTANQERVLSQKHTLAKKTILVDHHVKTVSYTDLTYINDQSIATCEMLAYSLMHTNLNFDVKTLNYLLLGLTTDSNRLMYDKVSDITYEIMA\*FFKNNVKHYQIYQQLYERNLDDILFDNELIKTIKTHKQIAYLNIDKS\*NQKYNFTR\*GDKVYLLSNIKNYPI\*FVVYFDETTNTYKVSLRSNKYKVRLVANQFNGGGHDLAAGCSLANIDQLNDLLKALELLIKNQEVVD\*

>UUR10\_RS02390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 proline--tRNA ligase

MAKKLEKIITRNENFAD\*YTSIVNNAKLIQYTDIKGMMVFQPNA\*AI\*EAIKNQIDLEFKKHGVRNLAMPTLIPLSEFQKEKDHIEGFAPELFMVNQIGDKKLDNPYAIRPTSEILFCNYFKNIVNSYNDLPIKNNQ\*CSVMRAEKTTRPFLRNAEFH\*QELHAIFASEHEADEFAKTILDVYTDFVQNYLCIPVIKGLKTP\*ERFAGAQKTYTIEAMMQDGQALQSATSHYLGQFFAKAYDIKFQGQDNQMHYVHQMSAGLSTRIIGALIMVHADDQGLILPPDIAFNQIAILSIFANKNPQLLTISEQIRNELSDYRLFEDHSDKGVGYKLAQQEIEGTPICILVGVKELANQQVVLVRRDTHEKINVNLIDLKSTIKKLLLDIKTNIYQKAKKQLDESIVFVNSIEELKQVIAQNKMAKAFFDGSKEDDEQIKLLTNASTRCIFDETQSGQCFYTNKKTNKLTLFARAY\*

>UUR10\_RS00265 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQLKDLINKKKNLNNINLKVSNERNIFLINIMKLNQRLTFFSKNAFEIKESILSLKRIYNIKHDMLRHEERKIFKFLNKINDRVLWIYLTEEQKYSTDSYSRYEQKILETIKSNRDDFILIGQGAIEFGKNHNLNILQTFNDSNIKNLTTQLTKMIMILYTFDNYKKVNFVINSNKNYDGHFTILPMNEFSFDKFINLEKCDSNIIDFQKVKIYPNLNEFINVQINVFLVNIINTLITESSFYKTKNGLVATNNILKELDDNLSKIQRKITRVKTELQIEEINLLARQNMNEDDNDNDGGVYES\*

>UUR10\_RS02340 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 urease subunit alpha

MFKISRKNYSDLYGITTGDSVRLGDTNL\*VKVEKDLTTYGEESVFGGGKTLREGMGMNSTMKLDDKLGNAEVMDLVITNALILDYTGIYKADIGIKNGKIASIGKSGNPHLTDGVDMVVGISTEVSAGEGKIYTAGGLDTHVH\*LEPEIVPVALDGGITTVIAGGTGMNDGTKATTVSPGKF\*VKSALQAADGLPINAGFLAKGQGMEDPIFEQIVAGACGLKIHED\*GATGNAIDLALTVAEKTDVAVAIHTDTLNEAGFVEHTIAAMKGRTIHAYHTEGAGGGHAPDILESVKYAHILPASTNPTIPYTVNTIAEHLDMLMVCHHLNPKVPEDVAFADSRIRSQTIAAEDLLHDMGAISIMSSDTLAMGRIGEVVTRS\*QMAHKMKAQFGALKGDSEFNDNNRVKRYVAKYTINPAIAHGIDSYVGSIEVGKLADIVA\*EPKFFGAKPYYVVKMGVIARCVAGDPNASIPTCEPVIMRDQFGTYGRSLTSTSVSFVSKIGLENGIKEEYKLEKELLPVKNCRSINKKSMK\*NSATPNLEVDPQTFDAAVDYNDLEN\*LEQPAAELAKKLKKTANGKYVLDAEPLTEAPLAQRYFLF\*

>UUR10\_RS01350 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 arginine--tRNA ligase

MMITQKISEQLSKALEKMGIFETKVLVDKTKNIKFGDFYTNVAMTLSKRVNQSPLVVAKEIINNLDQDLFFKVNLQPPGFLNFTLKAKDHEDLLTQIYDQKDLFGQFAKKNITYNVEYVSANPTGYLHIAHAANAIYGDILANLLKIYGYDVKTEY\*INDAGNQIDKLAMSVLVRYLQLQNINIELPTDAYHGQEIYLVAQALYEIYKDQFINVRLNEKEEIDDVIVNEQIKKFAVSYLLDEIKKDLASINTYIDTYTSEN\*IRSSGRILEVLSKIKQHTYTLDGAL\*LRTTAFGDDKDRVLIKSDGSYTYFTPDIAYHDYKFSKDNTTKLIDV\*GTDHLGYIARLKAAMSALGYDPNNLEIVCAQVMKLVKNNEEFKLSKRSGQSLTIKDLVEIIGKDALR\*FLGSSSMNSHVVIDVDIALSKNNNNPLYYVQYAHARANQVLNKQVYEFDFKTDLLIETRERELLNQLHFYKQTIANAANNREPHRISNYLYDLAQIFHNYYANIKINDENNKALSAQRYTLV\*CVKQVLANGLAIMKITPYDQMY\*

>UUR10\_RS01540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S20

MANIVSNEKTYRHTQKVRKENHAKMSKLRTIVKKTRSSNEQAQLNEAYKVIDTTASKGVIHKNKANRLKSRTAKAFKANLQVVA\*

>UUR10\_RS01630 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MEKTIIQLEFNEEELASIKKIKEKMDPNNNLELNVFLKDLIKDLARDYLNFSNQSFENIAKQMNDLKDLIGNMANDPSSFDFSSMMNEFQKYNKSQKDDEQEQTTKSDKENKSTTKPTKKS\*

>UUR10\_RS03050 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aminopeptidase P family protein

MSDFKLQQVLKTIKEHEAQGVDGMILFCPYNRY\*FLEFASSDGFVFINKDGKAIYLVDARYYTAASEAVKNAKVILLARTPQKSTFDLLKDAMVELNITNALVEADYVTLNVHEMLQKLVRKTTLFTSAALRAIKTEKELEYLQKAADIAALTCN\*IREQDIIGRTELEVAMLVSKHMLELGGELNSFDPIIASGPNGGSPHHHPGNRVIEDGDMVTVDIGCTYKGYCSDITRSFIVGNKANPQMQEIYDKVLESQTAGIDLVSTKVTGQEVDKLCRDIIDNSKFNGYFTHGTGHGVGLEVHELPNTNAGNPNKLPLNAVVTVEPGIYIPNVGGVRIEDTVVVKDGQALVLTRLAYK\*

>UUR10\_RS00065 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MPSLSLINDASIYAAILILGALSGFFCERVGIANISINGQMIIGALVFTLFSTIIYKYMGTKTETEYTFIVCLIIAGILTIPTSLLFGFLTIKLKTNQVIAGTAINLLASGVATFVTYPLGDKIANKTSLSSDYLGLMKIGDGINTIYIGSILILIAVVLITIGLIIMMKKTPFGLRLYAIGENPNAADAQGINVYKYQ\*IAVSISGFIAGIGGGLYMYASRSPFGGEVGGIGFLALAILIAGA\*RIPLIVVVSIAFAVITKTFSQIDKIPQEIGKLIPYVITLIALISFSKYSVAPKNVGIPFDKSKR\*

>UUR10\_RS00125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MHNYTFRFKLFKQIQNQTTKKLKPLILLVAAIILIATIFSI\*I\*NISYANFYDQTLNKYVYFSLNESLKLIFSGQFLDSSNIKYLNLQATF\*ASIASILSGISLAIAGCVTQALTRNPLADSSTLGIVQSSVFMIVIAFSHNIISFGGLFGFAIVGGIVASIILLILVFATRNKLSYVKITLAGLAIGVFFNTIAYFVRIQSAKGSSINFKYVLGGSENIYPTHIDPFLTL\*VSAVLILIGVIIACVLSHKLTLLEIGDEKAKNLGSSIIIVKILAIVSTIFLISPTILLVGNIAFVGLFAPHIVRKVFGIRDYRYVMPLSGLFGAMITSLGLILYRETIYINSSI\*MSFIGAPVLAYLG\*KH\*NRA\*

>UUR10\_RS00365 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MFKIFSKYFCNHQLDRDRIIKESNDYALVVDNLSYKYHKKLPDVLKNLTLDIKKNSFTTILGPNGCGKSTTAKAIVKLLKLKKGNIKVFDKNISELSFKQLAQLISYIPQSIEIPQGTRVIDFITFGRNPYLGISGILGKDDKAVIDLVINEMQLHDLKEKFMQELSGGQRQKVVLALCLVQDTPIILLDEPTTYLDIKNQYELLESLKKLQILRQKTIIAILHDINQAIQYSDEVFVLKDGQIYANGNPNEIITKTLLKDVYNIDAQIDIVDDQKIVHNIKVKDYLSNNK\*

>UUR10\_RS03115 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSYNLQKLMSSCMFELSDDEIKQVENRLNTLFNEIKVFELFDLQQIAPFEVINNSFDNFLRQDEIDSCATNNSEEVLNNCLEVIDHYGVLKNEK\*

>UUR10\_RS03235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L19

MALFKINKGEIMNFVNSTQLKTDIPSFDSGDTIIVHNRIVEGKKTRIQKFEGVVLRRRGSGSSETVIVRKESNGVGVEQSFNIHSPLVEKIEVIKYGKVRRAYISYMRNRSGKSARIKELNKQ\*

>UUR10\_RS00510 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MNNQFILEVKNLTKIYKKSNQGVFDLSFNVKRGEIHAFIGENGSGKTTTIKSIINAYTNYKGSILIAGFDNKTPKSHEKIGYVPEIALFPSELTTFQYLYSFARLSNLNKKQAIERIDYFLEKFHISDLKNKKPINFSSGQKKKVILIQALLHDPELIILDEPTANLDPSARHEFNTILKELHEQNKTIFICSHILKEMDSYVDSLTLINKGKLVYSGHKYDELEKIYYENVLKNK\*

>UUR10\_RS00975 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MYKEILIKNSSANYIVSDPFENMIDAFPIILFENNNYVYYLAGQNAYLPSQMRR\*KN\*DEILVNKNDLSKEDFLYKDIYINLFQIYITKKTNLTKYTNNQLNFVLTKNDFKKEL\*DKLIYIPIKKLINTQKPQILLFEIFKKQDQKYHSTLLFANKNVLKKFYLNSATRVNHEDVINLAFEKLETLQKLSKTTKVKKHLTNLKKY\*

>UUR10\_RS01860 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Holliday junction resolvase RuvX

MRKLALDLGTKSCGFAISDLLGIIASGLDNFIYEENDFIAVLAKIDEIMINYHHEIDTIVLGYPTNVYDGSKNKRTYLIESFYTLLKQHFLNHEKIKIVYEDERFSTKIATQRLKNSCVKAAKIKKVKDKMSAVVILESYLSKNHFN\*

>UUR10\_RS02490 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DUF5385 domain-containing protein

MLDKQEIIESILQADATKGGNSNFLMILIIIIPIILVVVFIMRKKRKQNGENQANVNNKDKSDTNEV\*ATIKKYLRSIDDKGKEVIDSYVVKRAEPHNLAQMTKQQKIDYKNEQKAIKALKTTNPEQYKIEMERIKKEKRAKPKELYVVLFTTRNAKTLVVDEPRAIECEVRLVKVNKKENRREIDVVRALDYDEEML\*IEPIKAKDDEIYNKRLEADKKKQQKAAERRQKQLEKQKSKTK\*

>UUR10\_RS02555 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate-nucleotide adenylyltransferase

MKIILFCGAFDMVHNAHIAMAKYAIDLIKADKLIFLPSNFKFFKPINKDDNLEYEKTKLTHGHHRLAMLKIATKNLVNTEVSDYELNQVNKSYTINTIDHFKKLYGAEHEYYFIIGSDNLERFKQ\*KD\*ERILKEVKIICFKRSGVCLKKTCFQNQCNCENFNFFEHQIILVNDFNYNISSTEIKKQHNLASGIDPAVLDYINEHGLYAL\*LLEKHLISYDNFNNLEKKIARINHCRRVAQMCVDLMNVYDKKLIDQAYCAGIYHDILKCLDEQESIAYFNEHKSELNIGDDFIS\*RILHSYLGAHLLQTQYGFKNQLILNAIRRHTRPFDFIKDYSELTTLDKILYCADKLEPNRREEIDQINIDYYRKLVFEDLDKAFIEVYKYQQRQRK\*

>UUR10\_RS03400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LKIVLEELKEYLTNKLYFKYKFINIFISILLAT\*LISFIVSLILVLNYGYNNKLLNHQKCLTFAILACISFLMLTITIVSFL\*IIFHNSTASYLVLKINKYAPKKPIKKLPFLFFKLAYYSFSKKQKSQYSQKQIYEYLTSFNDYV\*

>UUR10\_RS00135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter substrate-binding protein

VNKKIKTLIVSSSLSIGLLSLVATNIAACSSSIKSKQEYEIYPTIKGYEQRDFSKILASEFIKIIKTNIQFSSTNKDVKYELYDARLNELDEDVIDLIIRYELKGQTHTYKKVLKGFKNAKQYRLFLENKKYLEDEKNRDALYLTPTVNSSIDISKTTIAEALK\*QLSYLSINNGNRDLKYEILKITKSEVANSINVEIRISKGNGENLVSITYSRTLNGFISDEYKKVYLANLEEIKQAKNQIEPQLLDEKTKQKTVKEVIENYKTLFKLPTQTGFIYEIQSVETDVNNKTAVVFNIIVKKGENSQQATLRYTKVITGFVENK\*

>UUR10\_RS00395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 prolipoprotein diacylglyceryl transferase

MQLEIINPESTLINDVVAHRIAFSIGSNFNIY\*YGIIFVCGFLLAILTYSLRLKFHYKVPYDPGFYYIFLAIPMTIIGARL\*SLAIGDAKDFFDFRNGGLAIQGGVIAGVLSAAIYFPLILRMPKYHVRDLDADGNVIIRQPSM\*IYADAIIPTILIGQALGRWGNFINGEIFGAESTVNDLQ\*LKKAMPAVFEGMKHYFIEGDKTLFTIYQPLFLYESFFNVIVFVFIYFGLSYIKQLKIGFVSMSYFFFYGVIRFSTESARAPQFSFAGTYVINSLLLIFGVLGALYVQFIAPILRKRFLLDAIIELFYKKKQQAHKFGQLRNPEEFLYYCHK\*

>UUR10\_RS00840 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 2,3-bisphosphoglycerate-independent phosphoglycerate mutase

MSLNKKLALIIIDGLGIGKKDDTNAVYLANPKTLNYLIKNYPTLEISAAQQPIGLLENQAGNSEIGHLTIGAGRIILNDNANINSYTKRLDYESLVLNDINNEIVHVVGMYSNGLVHSNYEHIH\*IIKELVKNNNQVVLHLISDGRDDYPYGFAQFIEQINALKTQYNVIIKSLSGRYFAMDRDQR\*ERTQKAFNTMFIKQDKICEQSLLEVAQSIANHYESDEFVEPIVFNNDEKYNLKPYQKVILTNYRSDRMRQLAHLLKPNRKFNYHNPFLIKDIHLITLVPFPDVDAITLFEKQNLNNTLGDVLNDHHIKQARVAETEKYGHISFFFDGGINKHYASKTQYLIPSQKVATYDLCPQMSASLITKTIIDHYFDHDVFIVNYANPDMVGHSGNMKQTIQAILSVDSEIQKLYDFFKKNNGVLMITGDHGNAETMIDANGQIITSHSINDV\*FIITDNNIVFDQTQKFSLANIAPTILEYLNIKKPIEMAASSMIKKIHK\*

>UUR10\_RS01020 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine/threonine protein kinase

MREQIQTNSILNHKYKVVKHLADGGFSKVYLCCFLSDETKFIVVKVLDISDEKQQMVVYDELRISNLIKNSNSDKRSYIMEYYEYFESGSLETDDKRIYIVFEYIDGLTLREYLDEFKTVTYVKAVEIIRQVALGVSFFHSCNPQIIHRDLKPENCMINKTLSKIKIIDYGAASVFYNREDLTKDQEIKCTIIYASPKLLSLGQKVKEQASKGLNKNALSLINDALGVNYDIHSLGVMLYELITGTNPFSEHTIKDDRDYLEK\*TTYDVEPLSSINKTIPKGIDNILIRCFA\*KKEDNKLLYKDIYTLIDDLNNVMDPESSLNQDYIKPLNKLRIYRKNVAGLYEIKGKDRK\*YLQK\*FIILVGCLSIILIILLIIILSFKKSGAI\*

>UUR10\_RS01855 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 alanine--tRNA ligase

MLKLSTNEIRKK\*IEFFESKDHLFIEPKSLIPKNDPTLL\*INSGVSTLKDYFSGKVKPPHKRLVNSQKAIRTNDIFNVGLTSRHHTFFEMLGNFSIGDYFKKEAID\*AYEFLIDVLKIDVKKLWVTVFEDDQFTYDE\*IKLGIIKEQIIKCNRDRNF\*DVGNGPCGPCTEIHYDRGEHFDPNKVGSKLILEDIENDRYVEI\*NIVFSQFNNDGHNNYTELLQKNIDTGAGLERIACISQDVPTNFDSDVFMQITKSVEQFSEYKYDMNEYFHPNVAQNKINFAYKVIADHMRATVFAIADGAIPSNKERGYILRRLIRRTMVLVRRLNINNLL\*VDAVVNAIASTMGDFYTYLKDEKTLAKIKMILNKEVQLFEKTLQLGLNIFESSIHNQELDKDITFKLVDTYGFPIELIKEICEQRNVKVDLEAFDAMFKHHQLVSKANKANLKVMESQNESLMQLDVDSTFHYEIFK\*ENAKIITLFNEDFELVDGLDHEDGYVVFDNTCFYATSGGQQHDTGYIIKNDQQFFVDDVFKAPNRQHVHHVKNASLSMNEYVILQINEQDRKSITANHTAEHLLHYCLKQVLSPDIKQEGAAKYPHKVTFDFTYHAQPTKAQLDKLENVLNEMVQSNFDVQELHMDLDEAKAVGAAAYFEDVYKKLKGKLRVIKMGPSIELCGGTHAHHTSEIERIKIVECASKGAGS\*RITMVTGHDNLAKYIHDLYVEYLNEINHLKANLDINDHKLNDLYNAFAN\*KNLSIDDYDLLNEKFTELKQALINFKIEFDKQNAKQAIIDIKNTFNAQQTNKRIHVFKNTDNKNIFNALNELINENQNTLFISFNLDENKIQYLLAINEKFATTNQINLNKYIKELNTISNGKGGGKPYFVQGGTSEQEKLDELLTAIDK\*VINA\*

>UUR10\_RS02230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex transferase subunit TsaD

MEEKYLILSIESSCDETSLALFENNKLIAHKISSSASAQAFHGGVVPELASRYHEHNINRLFVDILNETKIDPLTITHVAYTAMPGLPGCLHVGKVFAKQLASLINAELVPINHLHAHVFSASIDQELVFPFLGLVVSGGESCLYLVSDYDQIKILNQTQDDAIGECYDKVARILG\*NYPGGPIIDKNYQEDLATLEFIKSQPAAKNFSFSGLKTAVINYVHNSKQKKLDFDPIVIASSFQKFAINEVIKKVKYYLDLYQLKRLAIGGGVSANSLLRKKIRDLNVISYIPQMIYTGDNAAMIGAYAYALIKNHKKSILIK\*

>UUR10\_RS03250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Cof-type HAD-IIB family hydrolase

MQYKMLVIDLDGTLLSKTKNISKANLEALKKYISLGGKVVLSTGRSLENTLKIVHLIHYEIKELIEYISCFNGSYIYDVINDQVLFESIINKDVVNEIYDFSLKNNLGF\*PYNEKFMQTHFLDVYNINYKLLLQLHHTKRKVCLNPVFNRNDKVYKINLLPSSFTKKLKHSIIDQLIEKFHDQVNISFTSKYIVEVTNKNINKASSLQFIANLYQINLNEIATIGDSPNDIPMFEISGLAAAARTKSKAILEHVDVIIKHKNNSKSVALFINNYLLK\*

>UUR10\_RS00355 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 GntR family transcriptional regulator

MDQYKINELIPSEYKLANYFNCGRITIHNAYEVLKVLGIVTTIKGSGYYVYSSIDHFTNKAFANLYEIIDNIKYEQFIIDFEYHGNKFNSITKFSLIKNKKTVAVSYYLTPNIMGLEQFDTNNINISKQLILSGFDDFFNVQTQINYENINLLKSILENENIKFDTPMILNKLTSSSLKVELLVLTHISKEYFSYEETNKLIVN\*

>UUR10\_RS00580 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MNNIN\*LS\*LRNSYI\*IVLAIIYIPLIIIVLLSFTTPSIKGNITSAFD\*NDGLNYLTLTTNQFTDALVNTIIVSIIAVPISTIIATMTCFGV\*HAKAFYKKLMTASAQTNMMIPDVISGISLALLFAATFIPIGFSFGFSTIILAHISYCTPYAIMIIYPRMLKMKKNLILASYDLGYTKIATFFKIILPYLLPSIISATIIVFAMSFDDFIITKLVGGKVNTIGTEMYSMAKGIKA\*AVCFGALMVLLTILIAALISANKIIKLKLINKQTNTRKLKI\*NKQV\*

>UUR10\_RS01110 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L23

MELTRVILHPYTTEKTYSIRNKSEHETLTFIVDKNANKYQIREAFIAIFGLKPLKIRTTNRGPAKIRTSTARPGYTKAKKIAYIVMPIGVKVAVSKEEVEAANAK\*

>UUR10\_RS01605 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MLKKQNKNKEQY\*LEKHLRQKKGLIVS\*SIIFSILVLLSISFGLILHFFDSTNLSIQLSFIVNVNKYLVDVTKILVYIGFGLIYLPIVFLLGCWITGINGVHESLYYHVFI\*AFYFISVILLIITICLSIATHIYY\*

>UUR10\_RS02060 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKKINKKILFSSLLFGTVAIGTVAVATACSDDKKTKKTINTGTIQPGSSTGTTSKSLTQEKVLRNEIISEILNAKSKKPDRDKM\*VN\*\*NSSFEQARKLAMEMDKAVDLTKSSNFKKLIAEGKYKSTFSAQIEDIIAKVKHDIKMYAESPF\*KK\*RDEKKTVITLVNNNAPREDLAAMNVTSIDLPADFPIIYSKPDYDGIPGLGARFPTPKSKVAPEKLLDDGFSFGDIIVEDGSETQKANLPGQLTESFENTADKVIYLYYDSGLPEAFKNNQRQPEKIKQFED\*MKSQNANDFIAKRMLKNPNNKDDLIVMPMSSL\*YASYGILGVNYSLHALSEAFGMPKSELDALKAKEEFKVPTQLFTLVNQDTDLKEDKKTIKDECDPFKSHRDPNHKID\*KVWATNSQVLDIAITLGLKPDLLVNGELSTSGHEERQLALYLSEYINGPLKDCRTITPSDGIR\*ETTSLTKIKDLNVNLILAGIHGEAATKMFGALMNEHKEIANFAITNRRFSDETRKVVAPQDRDQYSQNAALVD\*EDYLKTKDLH\*

>UUR10\_RS02090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ComEC family DNA internalization-related competence protein

VINNTFKTKNYYISFLILATSIACCFYYNNF\*ILIVNVCQFY\*LYQIKFNYKLIILIIVFSILCFALCLLIHKNFNIHYLITNLEKECD\*SLRKQIIVYLSKKYLNKNTLMLIKLMIFNEKVSGNFKQILYDLNIAHLFIVSGLHLNIFLLIINKIFFKK\*PKISFVIGICFLIFYGYLLEFSIGFIRVFIMHILSIKFFQKISKMDKLAISGLIIASLSIYNLSMLSFIFAYLALFCIYLLNLFIKDNSILKNIYINLYILSITFIISINLNEKINFLSIIFGYVMNLPILFVYQVLF\*FMFIPHFEVVLDGVTNILVKAIYFINEIDANIYIKNYSEIITIFYTSIWLTISL\*IYYKKILKKV\*

>UUR10\_RS02255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit alpha

MFINLNVHSYYSLLNSALSIDDLIQHALDNNQPYVCLTDLNNMYGCIEFYDKAKAHNLIPIIGLEFEYQNTTLVAYAKNYNGYLKLIK\*SS\*IMTNTTFIIQEDFDDLIIVCKKGGLVFENPNFYQAQNQNASNAIALQSVFYAQENDKTVFLAMLAIKNDLKLDDFIDCHEFDKNYFLNDHEAQSLFSTIALDNLNKVLNELQVEIHDLPINIPVYDKNNLTVSSEILKQLCISGLKQRLNAHDGQVKKVYAKRLKYELDVISEKQFDDYFLIVYDFINYAKSNGIIVGPGRGSAAGSLVAYCLYITDIDPIKHNLIFERFLNPTRKSMPDIDTDIMDEKRDQVIEYLFEKYGNDHVAYIVTFQRLKAKMALRDVGRILGIDLKVIDKICKNIKTDYDEDIDLAIKKSATLKEMYVLHKELFEISKKLIHAPRQIGTHAAGIILSNSSITNIIPIQLGINDRPLSQYSMEYLERFGLIKMDLLGLKNLTIIDNVLKMIYKTQNKKIDLFNIDYNDKFVFQDLAKAKTNGIFQLESPGMKKVLLKVKPQNIEDISIVSALFRPGPQQNIKTFVERRFKREEFSY\*NEQTKKILEPTYGIIIYQEQVIELVKTIANFDIATSDNFRRAISKKDEKILMQLKDDFINGALANNYKQPLVNQIFEYIFSFAHYGFNHSHSLAYSYISY\*LAYLKHYYPLEFLSVLLSHTSASKEKLLSYLDETKDFNISIKGPDIQHFSNDFVIDNHKQIIRFGFKTIKGFGDELLKKIKLALENAELSDYISYIDALKKGNISLKNIEILIRIGAFDSFEINRLFLLNNLEEIFEKTGLNGHFFDLNLVGLDYANDMSINERFQEDEIQYLGINLSSLNYTNYTNEIDYSNLKYEIESFNEINTNYEVNIVAQVLNIVQSKTKKGNDIFYLDVLVENKKEKLTIFQNSKHLVDEIDINGIYVFGVKLLNHFNFIVSVKQRV\*

>UUR10\_RS00415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit beta

MEVFVSIKKLIEAMKFSTTIANTNNANALLLGVLIEVNENKITFKTTNNQVSGYKEISDGFEYFSSGKILVTAKILLGLISKLKDKSVLLKQVDTNILLIKTENFETQINTMNIESFPSLNFSLEDYVKISLPHQIMQEINAKVLPNVLNSQGIEKIQPISGVLIDTETLDNQLIAIGTDKIKASCLTKPYLGEKFKFIISYSTMKLIMEVLRNVEYSNNQIVDFYVRNKSLVFKVNDAILQTRMIDGVYPNVYSIFNETNEEKNYVFDRRLLIEIIERGMNIVMQEQNPKISIKIENNEAEISLTTFEIGNMKEKMPIINLSNANVEFIVNPSLLAHVLKNFENNDVNFKVKDEILRPIIFIDAKDLGFKQILSRIKN\*

>UUR10\_RS00760 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 signal recognition particle-docking protein FtsY

MGFFKKIFNKILGKKDTGQVSEEISQKNEENRILKLEDNSINKFNEGLRKSSSALTNAINELATKYIDINEE\*YEHLEEVLIGYDVGYVATNKIIESIRNEMIYQKVNDPELIKSIIIDKIFIYYIQDTEINTEINLKQNQTNVVLVVGVNGVGKTTSIAKITKKFINENKKVLLVAGDTFRAGAVEQLKV\*AQRLNVDIELPIKEGQDPASVIYAGVKKGYEQKYDLVICDTSGRLQNKINLMNELKKIHDVIHKFDEHAPHETLLVLDATQGQSGINQAKAFNEVTKISGIILTKMDSTSRGGIVLAIKDAFNIPVKLIGLGEKLDDLSVFDLEMYVDSIVLGMKLDVK\*

>UUR10\_RS00445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease Y

MGYLIAFIILLILFVLLITIVPVVMVVYLKKKQLKLALVPKSQTSFKKAIQKSKDLEEECEDLNNKNNELKKTISDQNLQIDLLKKSNENFLLNATSLTAEQAKKELFNLLKIKFKKELAQDYAKIKHEFNEAQEIYAQNILVETMEQIAEPLIVERSLFNIDIVDENLKGKIIGRDGRNKAVFENEGGVDLIVDRQQPIVGISTPNPIRREIARIVMQKLIDSKNIDINRIELLFKEEREKFEKKAFEIGKNVAEQTLGFFDLPEGIYPYIGRMKFRNSYGQNILSHSLEAAEYAERIAKLINIDPIKAKKAAFFHDIGKTIDFESNLDHVEAGLLIAKKFNLDDYIYNAIESHHNKVIPTTIYGALVKIVDTLSAARPGARVNSYDEYYNRVKELEAICMRFDGVKSAYVIKSGRQLRVIVDSNLVSDEQLDLLSHEIKTAIEESDLLANYKIKIVLIKEKRISIETNIIG\*

>UUR10\_RS00550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-dependent zinc metalloprotease FtsH

MHFFKKILNLFTSKIESEDNSVKKDDLTQPRKQSPEARKKRNRRIIF\*LIVLLIIGTIIGVIIYFSVRKEYDSVIVKSAQTEIVNDKRVLYLNTVRPNSNQITRYTIDEDQLLAARVNILNNTNFQIISNASSLGLSRISFNIVREGVEKFKIGETSIYTPISGATNNQ\*N\*LTSIIAQNAGIPSSGFNAQVIISPLISIIFFAIFLYIILRVSKAQSDSLLGTNKGNAKLTKSSVRFSDVAGIAEVKEELIEIVDFLKEPKKYVAAGARIPKGVMLYGPPGTGKTLIAKAVAGEANVPFFQTTGSSFEDTFVGVGARRVRELFEKARKSAPAIIFIDEIDSVAKKRGNSLTAVQDQTINQLLSELDGFDTSSGVIVMAATNRLDTLDDAILRPGRFDRQISVNLPDILEREQILRIHSRNKNLSAKVSLEDIARRTAGFSGAQLENVLNEAALLSVRDKATSIHMNHLDEAIDRVIAGPSRPNKVISEREREQVSYHEAGHALIGLYSPGADVVQKITIVARGRAAGYTLQTPERNENILQNKTELISRVRTALGGRAAEELIYGPNEITTGAANDFYKITNIVRAMVASFGMTDVGLTQYIATEGVDNPYRNNYSEQTALAIDIEIEKIIQREYKIVKEMINEYREELELIVQTLLELETILKPQIDYIHQYKQLPPEVIANKNKREASQKQANSSVEEAKVVDDKEKDQKSN\*

>UUR10\_RS00075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MEIKTNQCPYAIEMHEITKTFLNGTVIANKDVNLFVKKNEIHAIIGENGAGKSTLMSILFGIYKQDSGSIKINGRIVNFNSAKDASKTGIGMVHQHFKLIDTLSVLDNVILGSEGTVQLGMIRRKKIAKELKKIIQEYGLNINLKSKISKITVGQQQKTEILKLLYRDIDILIFDEPTAVLSEDEIQAFLQMLKDFKAAGKTIIVITHKLNEIKEVADSATVIRRGHYIDSFDVKEKTVAEMAELMVGRKLVEIKNVDPITSDEKVFEVKNLDIQSIVKKQKDITKVKSSPTGDDVSLLAANNNNLINFSIRKGEIFAIAGVEGNGQSELAQIISGLLKGNKEAKIILDNQEIEHASIKNRYRLGLSYVPEDRHKHGLVLDDTIAMNTILQQVDDKPYSSLGFFNNSEISKHAINIIKKYDVRGTTRGTSDARGLSGGNQQKLIIGREFERSHKLILLVQPTRGLDLGAIEFIHEQTLEEKRKGNAILLISYELDEILSLADTIAVIHNGYFISVGDRFVMTRQKIGELMAGEKI\*

>UUR10\_RS01145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S17

MERSRRKVLEGLVVSDKMQKTVVVSVETKSKHPIYRKLVISHKKYHAHNDNDDAKVGDLVEITETRPLSATKN\*RVSKILERAR\*

>UUR10\_RS02895 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKK\*ISIAFLGFLLSLFIAIGVAFGFKNKKYFKTSLNFKTKLTMINKVDYEKIKKRKQLELKIDNIVYYAKFKFIKQVNDYCVIKIFLNLKTNEKMIGISIYTNTQPLIKSIINNFKL\*

>UUR10\_RS03440 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (adenine(1518)-N(6)/adenine(1519)-N(6))- dimethyltransferase RsmA

LNKTVIKNKLKQESFVPSKKMGQNFLLSNEIKNKIVNVANISKDDLILEIGPG\*GAITELLVQKTDTLVAIELDKRLYAHLKTYIKAPNFHIINNDVLCVDLDKLILDYTNTKKNQKIKVVANLPYAISSKIVLKIIQSKLINDAYIMVQKEMAERIGAKVNTRGYNAFTVLVQLFCKTKILFQVNAKEFHPQPKVQSAVIHLENLHNKVDFDIEQVSKFLRICFLNKRKKLKNNLSNIYDIKLVNEMFIDYNLDMNLRAENIEPKMFLELFNYLNKSNNE\*

>UUR10\_RS01680 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNKTNQIVDLLTNKKNDSIQRRDQVVFIKNEQEAKEVLASDISLNDIFNPLLSNDYEQKKIKQLVILNNSIKVNKIEEYTKALENKVDDLYTNVSNQLIEDYQKIQNVNTNEIVTKNEELLNTHLKEVEKICEQIIDE\*KIELLGEINFKFEQDLVQIDEMQENKLKAKSLTNEDSFLTRRQVKIKNKIIEEFEKQRTQASQNHLSKRNDILQKERDALLKNNELFELDSNGN\*DNFKKIALFISSEIGIINDLEDLLNHQELIRTENYTKRATLNRYRINGHFKDEKNYFKALYDLRVKFMYGLGSEIVILKFLIEHYKTLSELRLKLQELKHPLSSYAVYFDVLNRIEKQTYLLAKVEALKYDNYDFNADVILDGLEENTTNENQVVNKTKVIKTIIEPKYELELNSKDNKFSGVKVFVNDQEITPK\*

>UUR10\_RS00120 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKISFKCKLISVISIIGLSIIFATLTSCANLKQPRLYNSN\*LVENAN\*KRNNFFRNPYKIHLEFARQLDDVLNFNELKKRLPKPMQNVKSFTE\*SQKITQLIKDDVNNVAMLEGIQKMRKRKATVLVLENRDELVNNKENYNKFSILTPPDLPLIYSNPFTEVPGLGLNFPEPINEDVKDVIDRYQSIGHSALRTNPLESVLKQISSFYKTADYVFYMYDSNLFTSNKYKNNYRNRHQLFKKITSHKDFYPHKLLRNRYSKIIFIDRSLF\*\*GSFAMVGQSLIIKELLRIFASKEFSKIK\*NYKPFDKSELINLFDHKPSIQERNSIIKSHYINENTTLDYGYKIVGT\*ADSIDHLISFGLKPDAIVDYASFNNISLKTQGFSNYLKKFVDYDKLEKTYKTPNDSEKSEFINKDFAIYAGAAYLLNSINKLIVIKNAGS\*AIGTTQGINDPKTQFKTRINIAKSNL\*

>UUR10\_RS01200 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nucleoside monophosphate kinase

MKILLIGPPGSGKGSVSELLTKNNALKHVSTGNLFRAILKEDSELARKIKEINVSGGKLVPDEITNQVAKSAIDELIKNQQSFILDGYPRTINQALALEQYCDLDYIFYLDINHQELMKRLTGR\*MCPKCAGIYNIHFKKPQVDGVCDNDQATLYQRADDHEDAVSIRLDEYDKLTLPLIKHYKTNPRFIKINANQPIKDVYEDINNYLKQNK\*

>UUR10\_RS01365 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 purine-nucleoside phosphorylase

MTAHNQAKLGEIAKVVLMPGDPMRAKWIAETFLENAILVNEVRGMLCYTGTYKGKKISIMGHGMGIPSIGIYSYELYKFYEVQTIIRIGSTGSYKKELNVNDVVLVQKSYSDSTFASLIGAKVCDDKVLLPTKEVNELIEQTAKDLNLKLSLATCHASDVFYNNDFESLDEIIDRTKSDCVDMESFGLFANAQILNKNAATLLTVSDSLITGDALSPTERANTFKKMVTLALESAIKLL\*

>UUR10\_RS00595 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 3-5 exonuclease

MRTYDSISEISEDKDLVFVDIEATDNKGDQRIIQFSGYRLNIKKNKIRRFNKKFNPDQEINSRIKTLLNFNKNFNNIEQMPKLDQK\*AKEIYNFVKNAIVVTFTDFDIKKMHQLFSHYEFDLEKIIYFDIYKFFEKKLHTNAVPSLFSLGILSGIKIDFFKLHNALYDAFILKEIFLHIRYKTNEELYEMYSYYQFLPKIINSSYFITNEQEKNKGIIKKEVKYVMYIKEFDFTDKFDLNFVVYKKNHHFYSKPIYDSSLELQTISSAIDEHSSPKVQLANTFFEYLSKSAVFSMKKLGIKQSEKFLKFYKTHTNKRKIIKVLSLNLKKEIKPENFVIKAQVICETLSKNEAIHPFVQEYLKAFSDISSQENENNN\*

>UUR10\_RS02130 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MLKNHFHSS\*LYTTFLSRLVLFKKSTYFLVGISLFINLIFIIINALNIANDKQNYLILFYVFISINLVLTIIFSTIKAINLFKDLKDDGIEILVFSKSISRKNIIFTKIGFLVLNCVL\*SLITYIFNIIFYVVNTKNNNDINLFYLYAFFNYYFCALIFGSIAALIVSR\*SNKIAMIVPISCFLPFLVAGGVANLYSTSKINQVAKYMNINYDKYDSNTILDVEKFYLNNKSDEVYLITKNLNNPRFSQRQNEFLKTAFNQAKNASKPFQILS\*LSIPYQLNNSFYKNDLDPFNINNHQQNHLNQYFNYHGLESKLYDYELNKNPNLPQFNINENQKQYFVPGALKNVSQFSTLENRNLIYARENVDRFDVNFLEDDNLFSSTNNFIGELK\*EVIKNTLESKVFNNFAKKFYDNFDQDIEKPQIITAYNDVINEQSLINFSTIIDESSILFAKKIDNHYVKNLVEKKIYFIVALMYYLYFNKNY\*HLLEKLLKNNKVINFYRPSPIRINVNNYAYNIGGIASYELMKKVVNNKTLYRYQLQKSNNYVFQTAQEVYSIKRSKQIVNKNYY\*LI\*IIFSMILIICLALVYLKRDYK\*

>UUR10\_RS01360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 M42 family metallopeptidase

MSKFSEKEIRQKAIEYMEIYGMSRHEERVATKLKTSLKDVGVSYERDNLGSIIFKKTNSNKGPKILIATHMDEVGFVVQQILDNGQLLLSMVGGV\*PNIVIGSVAKVYVDEQRQYTGVFGHTSIHILEPEARSKAVPVKELFVDCGFSSKQQALDLGVEIGTEVYMEGPSLNFHDENYIVGKAVDNRVSVAVLDLLVHSLKDKVIPNQTYFAATVQEEVGLRGAKTVVSKVKPDIGIVIDTTTSHDTYKCPEGDTKLNDGVCIRMKDGGTLVNPALVKYFEALAKKHNIPLYKYVARGGGTDAEELQYGPDGGVLTIGLSIPQRYLHAPIGVATVKDMKAAFDLVREFLEVFDENEFEKVKFK\*

>UUR10\_RS02165 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MKTKFNFFKNKQNVIGQKQLLELNKKSFVPYRFKPLLTTMILLITLLIIIILIFSVTLANDLNFSELAKII\*QEVVQMIITGAALGVSSYVLQRITRNRFADVSIMGIGTINLILLCALSIPIDFTSANELNILQKKEP\*IFMSMSCCLMIVYFIVSRQKENFNYKKLILIGVILTFFLVAIAQSIRG\*LNYHANDYVIGHIVGSVQKAPLNTLIIASSFVILGLL\*LLFNSYKLNIISTNQQVAKQLGIKINFQIFVALVFVGIMVGASYSVSGDFVYVGLLAGNAAMRKRNNSFSYGILNSGLYGILSTLITY\*IGISLIGMDVHHIGAILPLLIGPYFIYKVLRS\*

>UUR10\_RS01840 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSVTNKKYDPQISELLKLRDLANKVDNLKRKLKTIEYNHYCEHENYDSDVNETNNVYEQEVSLNHETQIVKLRVDLNDLTNLSNPKIVEVEKPVYIEKVIEVEKPIEKIVEKIVYVNQENQVNKQESIKEERELKTPIKSGKYVKYRRLKNNGMSDAG\*KIFELVKQTQQDKVAAEKRFDEQQEEKKRQREQKRLEKQQKLEAKNEQ\*

>UUR10\_RS03085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 energy-coupling factor transporter ATPase

MSQSDKNTHNYQISSLDKVINDSSVAVEFENVYFAYTEERMILKNVSFTINDNEYVCIIGHNGSGKSTISKVLTGLLKPKSGAIKLFGIEISAANLKYLRNNIGIVFQNPDNQFVGITAEDDIAFGLENRKVPPNKM\*DIINDAAIATGIEDLLKKESLELSGGQKQRVAIASVLAINPKVIIFDESTSMLDPKGKNELKDLMVSLRDVAKKTIISITHDMEEVVKADKVIVMSNGEVQYIGTPQEVFANEERLLKMQLDIPFTLRLAKTLKDKGLKIDLTLNNEELIEKICKN\*

>UUR10\_RS00140 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKTKFKKIIILFLGLPVLAIPFIVSACSQLKINQDVILTYRPTVSLAKEFTNDNNTIDDVLKKVKINKDDTNNLLVYDLSKSPKNVQYKIVDIKKDSEQILKVTINAKIQKYKQSINYDFYFQPFLTPKEKEDKTIFQQNLNIIKSA\*DYDQKQKTGFFDLKIKTEYQKKSLVEIKTLGEKAFDFGKDLNPQLKVDPKFKDINIKIIDINYFEPLNEKQRELVIEIVITKGENEQQAQLFKKIKVNLN\*

>UUR10\_RS01090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L20

MRVKGGSVTRQRRKR\*LEKAEGS\*GTRNTSYRIARQTVIRAAEYAYRDRRNKKRDFRKL\*ISRINAAVRELGYTYSQFMNALVKANVVTKDGQGLNRKMLSELAINNPEAFNQLVNKVMK

\*

>UUR10\_RS01825 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aspartate--ammonia ligase

VGQLQKAKINQTQKAIVEIKNRFQKYFAKNLNLSRVTAPLFVEGQSGLNDHLDHKQKAVSFYAKKLNKTLEIVQSLAK\*KRLALLDYGFSLYEGLYTDMNAIRADDDIDEIHSIYVDQ\*D\*EILINKQDCTLDFLKSIVNKIYSTIKTVQLEIDQLYNPKQIILPDSITFIGSQELEDLYPHLTPSQREYEFAKMHQAIFIYQIGYPLKSGYIQSIRSPEYDN\*NLNGDLIVYHKLNDQAIELSSMGIRVSKQDFIKQTNFANLKNDQENNFYHQMILNDQLPQTIGGGIGQSRLCMFLLNKKHIGEVQVSV\*PNEYKDELLKKGIKLL\*

>UUR10\_RS02750 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S4

MSRYTGSIYKKSRRLGFSLLENNKEFNSGKKRTYGPGQHGNKKVKLSNYGQQLVEKQKLMFLYGLNDRQFRRLYRVALGRPGVLTLNLLQVLESRLDSLVYRAGFAPTRRAARQLVNHSHVLVNGKKVNIPSALVEVGSTIALKEKSLEMPLIKNTLNKPADFIELVDKDKKVAKLSRLPERSELPADVNEAYVVE\*YNRLM\*

>UUR10\_RS00280 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP F0F1 synthase subunit alpha

MQSTKANPRIKSIFNYIVTVSGIYDYQHHQIFVLKNDPTVKLFVISAKEDVAYLLISNEHANINIGDEIIETNREENVVTDLNYFGKIIDINNNFI\*PKPLNNLPSAKIAQTNPAFGLAHNLMTVKTLNEQLNTGIIAIDLLIPIGKGQRELIIGDRQTGKTHIALNTIINQSRAGTKCIYVAIGQKRESLTTVYETLKAHDALKNTIIIDAPLTAYEQYLAPYIGMAHAENLSYQHDVLIVFDDLTKHANIIREMALLTNKPVGKEAMPSDVFFSHSSLLERAGSFKNRKTITALPILQTVDGDITSLISSNIISITDGQIVTSTDLFAAGKVPAINIDLSVSRTGSSVQSRMITKVAGEINKIFRQYKRHLKLAMLDYEFNKETSLLLHKGKLIDKMFLQKGFSLFSYRFIVLSTKLIA\*GILKGVKDEQKAFMLLDYAINNYEDAQKAFNTISTTQNYDDKIMKNYFAFILKQYSDYLNLN\*EVELEHSFIPLQNEFLMNVAKFLGDK\*

>UUR10\_RS00545 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypoxanthine phosphoribosyltransferase

MKDIDPRIKEVLITEEQIDQKITEAAN\*INKEYEGKEPIMIGILKGCIPFIGKLLPKIKVDMKLDFLAISSFKGGTSAQTEPEIITDLKFEVKDQDLILVEDIVDTGRTIKKVYDLLKIRGARSIKLVTLVDKKDGRLVDLQADFACCDIPLVFIVGFGLDYKEIMRNLPYIGVLKEEVYQEDLNNKNEGDGE\*

>UUR10\_RS02980 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

LVEHKQKKTLKRCSSHFRKNLTIFRTLIELIKESSPFIAASVFTGLSLILIVVIVAHHKDIGAYAATSVSYLTIFQLSFLQLGTTFGIVFSV\*SKRSFKDGKYKFEPTNDTANAASFYSFIFGLVVLLIYFTTSYIYNHFANDHQNTLINQNIGSAYIISGLAVVGLAPLRNYLLMLIRSNKSINILLAIVLDFCT\*TTALIAAFLLGSYSSLGYWGYGLGMSIGFIF\*TIIIGMTAIEKAQIVLRPLYISKKLFVLSIKLL\*IQTILSSLKSVGKMFILLITFVVINERVVGSSLLDFQSSRILMYQSMIFIQMLNLGLSDFLFYLYQKQEVRDRRYHSRQLFA\*IFIFGILFALVGSIIFGFSIKQLVELYTREQSPSYIFLEKQVPEHFYQSLRKILINDDELLNIIVNHTNINKDEIINALSSNDKNI\*LPMAKKVIDPI\*KLGDKFETIYHMKNPFTHRYVDISENNVYKYLIKNNAYILLTFFCTFFSFSSILGRYGGLIARRQRVPYVMIVIQLVMVAFTSGFGLTHQTDPHFIGLMA\*SFPLFISSIFILGYSAYKILRGYLNYLKKHRYNDQKTSIMSEKPQEQQIKVRQN\*

>UUR10\_RS01175 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L6

MSRIGNRKLTIPANVNVSVESGKVHIVSQTAKLSVDFPVNLISVDVVDNTIKVSRANDEKQTKMFHGTVNANIANALVGVTTG\*KKELEVKGVGFRAKVEGSKLNLGLGFSHPLLIQIPTGLKIETPSATEISISGSDKATVGAFAAVVRAYRKPEPYKGKGVMYKGERIVRKAGKTADKKK\*

>UUR10\_RS01865 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 leucine--tRNA ligase

MYNHNKIEKK\*QKY\*LDNKTFKFVDNPNNPKKFYVLDMFPYPSGKGLHVGHPKGYTATDVISRFKRLNGYDVLHPIG\*DAFGLPAEQYALETNNHPHTFTQQNIKIFRKQLQMIGFDFDYDKEVDTTDPQFYQ\*TQWIFVQLYKHNLAEIQDIDVN\*CENLGTVLSNEEVVLNDKNERVSERGGHPVVRKPMKQ\*VLKIVDYADKLLDGLNEVEFSESLKSLQRN\*IGKSIGTNVQFKIKDSHLALDVFTTRIDTIYGAQYLVVAPEHPILKSIVSEQQASVVQAYVDQTKKISDLDRIADTNKTGVFSGTYAINPINQEIIPI\*VSDYVLMNFATGAVMGVPAHDERDYAFAKKYDLPIKSVIDTKQSLPYTGDGLHINSPMINGLNIEQSQNILNDYLVKNHLAKRVVNYKLRN\*IFSRQRY\*GEPFPVLFDENNQIKIIEDLPVLLPNLDEFKPSKTGESPLANAQE\*LYVEIDGKKYRRETNTMPQ\*AGSS\*YFLAYILKNEDGSYTPLNSEEAKKRFAK\*LPVDVYIGGQEHAVLHLLYARF\*HRFLYDIGVVPTKEPFYKVINQGMILGENNEKMSKSKGNVINPDDIIASHGADTLRIYEMFMGPLTASLP\*SPDGLDAMRK\*LDRVYRLYHNLSELEVVEDVNKLNEEIIITYHTLIKNYTKAINEQAFNIAISEMMVFVNVLYKNKVINYKLLDNFLILLSCFAPHLAEELYSLNHSESVCLQKMPIYDEQKIIAQNVTIPIQINGKLKHTINVLRDTNAEQLINLALACEQVKQAIGDQPIKKQIVVVNKIINFVI\*

>UUR10\_RS00420 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 S4 domain-containing protein YaaA

MKKIFISTEYITLNQFLKMAGLINNGGQAKF\*LLENEVIVDKKKEDRRGRKLYDQMIVKIGNQLYQIVKTDESR\*

>UUR10\_RS03210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter permease

MNQKNSLESNSSQSNYGELPQQSTTLSQKKRVNYSFSNNFVIFGGGRSLKTAADRDHVVDPLIDFFTFDSKFMTFITKSLKLIAEFFLLA\*IVITITFFLINSVPGESALTIGITSPEAKKAILAQYGLDRPLGVRYADYLANIFRGEFGVSTSIRPGVEINSFI\*SRYLVSFAVGIFSVLLTLVIGIPLGIFVGRKPGGVLDSVSTVIISIISAVPSLVFGLILLLIGKEVGLPFTFDINNFVTYILPGLALSLGSIIVYVQYIKVEMNRELNSMHAKFAYLKGATVNRFV\*LHALKPSLFPIATFFPFVILGSFVGALFIEQIFQIPGSGSLFFEAIISKDYNVILLLVIIYSLITIIGYTIRDALYQIIDPRIRRGGK\*

>UUR10\_RS03360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transketolase

MNRYVNAMRSLALQAINKANQGHSGMSISAAPIIYTLYKGLMTISKSHPK\*FNRDRLVLSAGHGSMALYPVFYFSSLLTLDDIKNFRNDNHLTPGHPEVLSNNYIDASTGPLGQGVANAVGMAITESYLRAEFASLKGVVDHYTYCIVGDGDLQEGISYEAMSIAGKLKLSKLIILHDSNDYQLDSAVSDVNIEDLKMRVESMG\*NYLKTDNNPENIFKAIAEAK\*KKNVKPTFIEVKTIIGEGTSFENSNEAHAAAISKEELEKFGKRFHTKTNNFEFHQEIFDHFFFNVVARGESAYNQ\*QQLVDQYMQTNPEQMQRLLNYINGNYEDLNKMLDENKIVNLSDSTRSYLKQYFAQLKDLKSALVLSADLAKSTFTKIGENAFNDDYKNPYIKFGIREFAMAGAMNGISLHQGAKAIGGTFLAFSDYMKPAIRLTAISNLANLFIFSHDSYAVGGDGPTHQPVDQLPMLRAIPNVEVIRPADHYEVKHALSYSFKQKQKPICLVTSRQAIKQINEQKPQDFTKGAYIINSPFSFSENPDYTIIASGSEVSLANDAAKEIFEKHQLKVKVISAFNLNLFLQQKPEVIKNLVSSKNGLLAIEASSEML\*\*KLSVYTNKFMQIAANQFGRSADGNKLMHEFGFSVENIINQLLNKK\*

>UUR10\_RS00100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 dTMP kinase

MMLTKNSNELKSPKKGLFIVFEGIDGAGKTSILKQLLDVLKEPKLVNKIFLTREPGGKNNTAAELIRDFFLKNLEAFDPLTLAYLYASSRAEHVKKTINPNLEKGHIVISDRFVHSSYIYQGIVQNQSLEVIHHVNQQAIGNLEIDYIFYFDVSVNNALNRMKNRFDNTNAFDSQNKQFYEKLLKQYPSVFNAYNQPKKIIFIDANKSENEVLCEVKERLLEIFKEHKYI\*

>UUR10\_RS00105 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 alpha/beta hydrolase

MELIKTNTLNFYFEPAKNELKKGSIVFIHGLDASPHYFFLINQSLLEYDCYFVGLPAHGLTPVNSKKELNIPAFAELFIN\*INEIDLKEFYLLGHSLGAGVASLVGFIVPQRVQKLILVCPYHYQYLNPFLNKKLFNA\*VLFPNPFLKFKTDVILKKLYIDYRNNYKTLPETR\*DSISREYPRVARDISLLCLSLLNIKFNHELKMAQRNLIMPTLVMVSKQDELIDYRLALKVFRNNSQISTYIFNNSGHIPFIEEPKLFTNILLSFLEDRFIEQEESESNDVNEK\*

>UUR10\_RS01655 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSYYYKSKFRITDHALARFRERAASTDVNIKNLSDTFIIPIINERILGIRPLNSLNDNFHIYMDPKNKGYYFLVDKYTNTIISYTKRTNKNDFYHIKKVK\*

>UUR10\_RS01525 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MNNNEIEDELDLENFNYQKALEVPNLKAINLTEDEFNLHF\*DIVGVYRSYLNNLKEPNDSGYIYELNRNEYNHLCLVVIKKESKVDKVKKNYILNTIKNMDYDISLTDDSQIFSKKSEILDNDLLVERNKLINFFLEEARKNKKQSANKEDNITTNDQQLKSAFIYGDFGVGKSIITQAYTNTISLKYNLKIAYITLNELFKNVIQFFNYKDISDSVVNELINELSNIDVLVIDDFSSGNLNY\*SISTILMPIIENRLKSMKQTIFISNFSIEQLNNSTKNIANIEEQKAKLRLFNRIECLTYGNVFKIKGPSIFKVTNNL\*

>UUR10\_RS02170 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 iron ABC transporter permease

MFKNKSLSFKTKLD\*KTCLRKVAIALLTILSICVLICYCLFDGRELMDFKTIGEEISEGSSSYTRKFIGTPIAIFLSALALSFSGYSMQVVSRNPLASPTTLGYLPAAILGLAISKLAINHVLYLPFIIGIVFASCLIVINFFLVKGNALEASFKPILVGFAIGGIITGINVLLEDFAKDIHIKITGFVEPPINFQ\*QHLYVGGPLIIISGLANLFMAPYYTIISKDYLLAKSLGIKVDLVF\*LTAFFAIVSTVSSIILVGVLTLLGMIAPHVARILNPKGNSFQQLLLSFMISLLLLTSSR\*LISVYNQFDINFFSAIAALPVFAYIFVSKQYRKNVE\*

>UUR10\_RS01660 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 uridine kinase

MNAKSPILVLIAGASGSGKTTFANEIVARIPQNTTSVIICQDSYYISNSQLNKNERRLINYDHPSSFE\*DLMREQLSDIKKRKKIKVPIYDYKTEIRLDKTIDISDVDVIVFEGIYAIYDDVINQIADLKVFIETPKDECLIRRILRDVNERNRSFESVITQ\*RSTVSPMYDQFVEPSKKNANVSVL\*NEHNRVALHLINK\*INNIH\*

>UUR10\_RS00925 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphate ABC transporter ATP-binding protein

MNDQKDNKEIQTIVPLNQKTNLNELDAKAIYDEFQKLNKYQRAFA\*LKLPKQKKAELKQFLNKKKTQVDLLKEDFNDANVFEIRNFNF\*YMNRTKHVLHDLNLDIKRNKVTAFIGPSGCGKSTFLRNLNQLNDLIEGTSHEGEIYFLGTNTRSKKISSLELRTRIGMVFQKPTPFEMSIFDNIAYGPRNNGINDRKILEKIVEKSLKSAAL\*DEVKDDLDKAGNALSGGQQQRLCIARAIALEPEVLLMDEPTSALDPIATAKIEELILELKKKYSIIIVTHSMAQAQRISDETVFFYQG\*IEEAGETKTIFIHPKNKRTKDYISGKIG\*

>UUR10\_RS00030 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RpiB/LacA/LacB family sugar-phosphate isomerase

MIKKIYFGNDHAAYEIKDQIIAHLKQKGYEIIDEGAQVELGSVNYSPYALKVANDVVNDAKNDSLGILLCGTGIGMNMAASKVKGARVALIYNESSAKLAKEHNNANVITIGARENSLEQIIKMIDDFLESKFVGERHQKRLDIITEYEKNQK\*

>UUR10\_RS00035 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MSNILSNVSSSSLFSTAPSAAAENTSNLVSQLVPEAYTASGISIAISVFSVIGTIVIALSVLPQTIKTLRERDTASLSLLLFLFNGIATAFLTLYGIGLVTVHPNSLTFLRDIQNGNFIYNREE\*VAGYLVCGIFLIMGEALCSVTSFIVLFYKVNNMIKAKNMGMNEEEYYEKQIKPFLKVKGAN\*

>UUR10\_RS00145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RNA-binding transcriptional accessory protein

MIDLIIKTLVQKLKIEAKYITNVLDLLADNNTIAFIARYRKHLTNNMDEFQIQAIAHEYEYLTKLNKRKEAIIKNLEQKGLLTDDLLESINNCQRLVDLENLYEPYASNKKTKASMAIEKGLEPLALLILKNNPNCNIKEVAKQYLNEQVLSVDEAIAGACDIIAQKVANDATLRQMLYETISKHAKLITKINKIANDPTENFALYYEFSCPIKYLKAYQLMAIDRANELKIITFKLDFKKEFLIDFAINKYTRKNKSDSYDYIKLAVNDGFDRLLIPSVSNAVYKEKLDEAHQQSAQIFSDNLQQLLLQKPLKDHIVLGFDPGYAHGCKLAVVDKNNQLLHTDIIYPHKPQELIEQAKNTLISLINKYQINTIAIGNGTASNESVIFISDLIKEFKLNINYCVISEDGASIYSASLIASEEFPNLSVEKRSAISIARRIIDPLGELIKIDPKSIGVGQYQHDINKNILEQKVDFCIDYCVNQVGVDVNTASIPLLSKVSGLNKRSAKKIFEYVKEHQSIKSREQLKTIPYVTDKVFEQAAGFLRINNSLNFLDKTSIHPESYAIVNQLCEYIKLPINDLINNHQVLNQLNPNDLTNVLKTDVYTIENIINNLKNPLQDVRDDYDIPILRSQMVDINDLKVGMLVQGTIRNQTQFGSFVDIGLKNDALLHISHYSEQDNLHVNKNINAYIDKIDTIAQKISLKLRP\*

>UUR10\_RS01260 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YigZ family protein

MSFKTIKNDQNSLVIIKKSKFYISINKVNAKKEVSMLLKKYQDEYSDATHICYAYIIGPQSNYMKTQDDGEPNGTAGLPILNMIKTKALTNVIIFVIRYFGGIKLGAGGLIRAYTQCAKEIIELCEIINLQKYFYYKVTYKLKDTKFASQILASIDYEKLSENYDSNSVVLEIRSLIKIDIYTSHIQFVFVKNDY\*

>UUR10\_RS00060 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 BMP family protein

MKKLNKKKLFLSLGSVFALSSVVAITASCSQKSTLNYSQFY\*TSPTSDDDNGFQTKYKSMANDGKRALLMPGFQHPEKLQNALANDKFDANSIALILDAVYNNDNKAEFYKGADRVADVYFKVDEAAFLGGIAAAYMLNSNQSVFGKDNKLT\*GGYVALNAKNTTNYLAGFDLGVK\*ANEKLKGKSVKQEGTQETKT\*IEVEQVYASESSAGGFQPENDNAKKIIRELITKGVDLILPVAITQVGVAVTEAIATTSHNVGVIGVDVEVENDEAINKKTDKFINTNLSGNKNGVVRFSITKRLDVATVKLLENAISGQSLSKGKDEIIIGSEIDPRDKYKLGVNTVGNLSDGVVGISPSAYHYVIDAFNLAQANESDKISTYDQLVNKITNDELFKTLDKKPLVEGYLDVKKETDNDAALLENKTIDPRVNGGTLYKSAKGTYYFYPVAKSTYISNSSSNKFKEL\*DGAKTNEEKQSLIGLILSYAGAKVKDGGYSEATYNGLKEFYAKHGIKIPTL\*

>UUR10\_RS02465 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNNKKSKKFYDFLKTIKGFKVITIISYIFVAILLAILI\*SAVRLSYYVEDYYARIDDYNELKQNIIKIFKTKDFRLDSPYNQIKMFKYGSIIGVSSFLIIIININIFAY\*SYSNVYIPELKDKKLVKNWFRNFQKNNKVQKTDKQEQEDLKKESE\*

>UUR10\_RS00720 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQSNTKLVKYSKIIANRLKAYSNQTRFIEIKTAFELNNEQKQRIKKTIINRFGDERPIKFIVDPSLIGGVSLKINLEIIDSSLKTKLNQIINIKEKEGA\*

>UUR10\_RS01835 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 asparagine--tRNA ligase

MQLKIKEIFDQDYTKLEGQKVQIKA\*VRSNRDSKKIGFLVLNDGSSLTNLQAVYRVDKISNYEEITAARM\*AAVAIEGVIKLTPTAKQPLELEVLNAQILKQSDEDFLLSNNDLSLETLRLNAHLRPRTNLFHAIMKVRATLAFAVHEFMNQNEYS\*LAAPLFTGNDAEGAGETFSIQKFDNEEFFGKQTHLSVTGQLQAEAYAQAFGNVYTFGPTFRAEKSHTNRHLAEF\*MIEPEMAFVDLKGMQDIVENLIKHVIKAVLEKNQQELEFLAQRNDENLIKKLQKVVDSKFERIEYKDAVKILANAVKSGHQFEDNEIFFGMDLGSEHERYMCETYHQGPVFLQNYPKDIKAFYMKLNDDQQTVASTDLLIPGVGELVGGSQREDNYEKLLKRCQELKMPIESLQ\*YLDLRRFGYYMSSGFGIGFERLVMYVTGVNNIKDTIPFPRSHGQIEF\*

>UUR10\_RS00225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

VSPISIELIIQISIGLSASLILLFAFLPQTLLTIKTKNTAALTISMFIICFIARLCFSLSAILTIIVYIHNQDYGLSLYALTLPVLICHGINMLLNLIIAFIKINNVYKAKIHKMNESEYIIFAYAQKLKEKVSIKK\*

>UUR10\_RS00620 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 dihydrofolate reductase

MLKLI\*CQTLNGGISKNNKLP\*YVKEELEHFYKTTKNHKIVMGKSTFDSLEQKPLSNRTNIIFSSIMQTPEDQSYFVTNDFQQLLNDAKKEDIFIIGGKELFDIFLNHADALIVSVLNDYYDCNLYMKVDYNNFNLDKKDVYDNFVVNYYSSKKDK\*

>UUR10\_RS01290 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (cytidine(34)-2-O)-methyltransferase

MLHIVLFEPEIILNTGNIARMCVGFNANLHLIRPYGFILDKARFDKDFVRASANHLDELKLFEYDDFYEFIAKNNIIENQIYFFTRYGTKAPCDYKYANLNKEDVYLVFGKESTGIDHDILRKYPQN\*IRIPTSINLRSLNIANSVAMGIYEVLRQNDFSDLLKYEPHKKFE\*

>UUR10\_RS01520 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 deoxyribonuclease IV

MDKYNLIIGSHVSLKANDFFYGSVKEALSYGANTLMVYTGAPQNTRRQPIELFKINEAHNLLKEHNIDLNNLIVHAPYIINPCSSKKYVRELAKEFLIQEIERTQFMGITKIVLHPGSCLDQDEDIALKQVYTMLNEIFATINTNVVVCLETMSGKGSEIGINLKQLKTIIDNVDSKKNIGVCLDTCHMSDSGIALDHDSFNQYLKEFDAQIGIDYIKVLHINDSKNPRGANKDRHENLGYGTIGFDNLINIIYHPLLNNIPKILETP\*FDFHDQSISLYEYEIKMIRDRKWFDIKYKLLVGNK\*

>UUR10\_RS03390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-processing protein DprA

LNYLTHYFSLKYKGD\*LKIYLALINHEEQNEHSLLENEEYERLKAIDLTDEKYPNKYKKINQPPFILYYSKTIE\*LDKKNI\*LIDYENAISNYDILTLIKAGYGFVIYYDNAILDVLINRLITLKARICIISNEGIYSSKNIKYLNYCNVSVISEIPKDYNGSQTKQDLKRLACASSDHILCVNELYQIDDYLLNQYKDCQLDLVLLDKKLTKPNTIYPKYINRIYQFIKNTKLIN\*

>UUR10\_RS00045 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 magnesium transporter

VKNKQNTSNLNNNTNINQNFLSQNILKAYEHKDIAGLKKLLKSKRIDKIVESLEAIDDTQIILFVLVATKDGICGEIFKYLNTELKSKIIDDASLQQLRIILFELYNDDVTILKNDFPMHTKKILLSLDSQQRAAIKQLSEFDEDEAGSIVNSDFFTINQSISVKEALIEIKRMYNDFEQSNIIYVVDDYNRLKGYVTIHSLLFADSFDLKISSVVKEDVFYVRSDEDIDAVLDIFRKYQIEQLAVVDKNDQLIGYISDNDILPVINTETTTDIYKMYGISELDFPYIKSSVFVLFKSRLL\*LAVLMISATCTGFLIDKFQNVGQLVTAGLSTLVIVPIIPAMTGTSGNAGSQAAASVIRALSIGEITTKEYNKVLAKEFLVGVLIGLVLAVINFARLIIYFAIIKPDLQQYNVLYNNITNNPHSQMIVGAIVSAGSSVALFFAIVISKLLGGILPLLATKLKIDPTIMSTPILSTLLDMVTTIILFGFGILFLLIIVDKVKVEELNNMRESIHAVKNINSLLPKQNFLLNNSNYLNHLA\*

>UUR10\_RS00710 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MNKSFEEFSKLPKVKQIFTPWFIVALVVFIVGLVIAFTMVGLLNEGFENARALVNDQGQIVGKVADVNGNDHSLMS\*LGYDQHANYQELYKIINNRLIDGQTMESLMNNTDKKVDPKLYEALHYHAHSKLINHNGT\*GFTTKVLSD\*ENS\*FYKYNQLFSQLADSKDSILAAQGAKSLKKLSTIIQYQNPNYIVYN\*VFIVFMMPQMITFVIIVVKLATVLSPKKSAEEKQAYKLAKLEAKKQKKAKNLNNSLQQTNLNLEAN\*

>UUR10\_RS01850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 thymidine phosphorylase

MLNVVEIISKKKNNIELSEQEIKFVYDGFVNKTIPDYQMAAFLMAVNFCGYSENEQYYATKAMVESGKVLDLRVENKIVVDKHSSGGVGDKVSIILTPLLSALGLYVGKMSGRGLGHTGGTVDKLESLNLNLDFDLKTYMDQLKDNGLLLTGQSDDMVLADKYIYALRDVTATSDVFDLMVGSIMAKKLALITDYIFLDVKVGEGAFCKNVEQAESLATKMLKLSKKFNRNTIIHLTNMDKPLGKAIGNAIEIKESMDYLLGKPVPQDLYDLINQFALDILIDTKFAKNKEDAQAKIDNVIKNGLAYQKFVN\*VK\*YKGDYISLENNTYFNPKYKLEILAKQDGYLDFKSTKELGMIAVDLKAGRKVKTDQLDFQAGIYLNKKNNDFVKTNEVIATLYANQPISDEVVNKYHNNVVYLKTPKQIAPSIIKVMR\*

>UUR10\_RS02215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 IS3 family transposase

MSKIIDNIDTKALRIDHYEE\*EQNHIIKVINAYRHHESKKEKFKMIHELIKNHQMHLTKLIPLFDVSISGYYK\*LEDLKIDQVCPIKKRNMDLIEKICKSHKHYVGCRKIQKILETQYNVKLNYKTINLYMNKMDLCKPCHHDYDAHRHEHCENEE\*

>UUR10\_RS00050 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L10

MANVRPSVVFKQQEVDHMADILKNSKSFIVFEYHGLTAANILALRNVLHSSNSKLFVLKNNITARAFEKAGVTGFEDRLTGPNAIAVAMDDEIAAIKAVNDVAKEFDFVKIKGAYLENKFADTHKIDQLAAIPGREGLYSMLLSCFTAPLRNVLYGLKAVAEQKGE\*

>UUR10\_RS00700 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit beta

MTEVKKGKINQILGPVVDVRFPSE\*LPEINTALELNNHGSKLVLEVSQLVGDNIARCIAMDTTDGLVRGQEVINTEKPIMMPVGKQVLGRMFNVTGDPIDEQPAPTGKRMPIHRPAPSFAEQAEAIEILETGIKVVDLLVPFAKGGKIGLFGGAGVGKTVLMQELIHNIAKNHGGLSVFAGVGERTREGNDLYYEMAESDVLDKTALVFGQMNEPPGARMRVALSGLTMAEEFRDAFGQDVLLFIDNIFRFTQAGSEVSALLGRMPSAVGYQPTLAFEMGQLQERITSTKKGSITSVQAVYVPADDLTDPAPATTFSHLDAKVVLDRAIASLGLYPAISPLQSTSRLLDPLVVGVKHYSVARRVIEILQRFMELQDIIAILGMDELSEEDRQLVMRARKVRNYLSQPSHVAEKFSGQPGLSVKLEDTIEGFRKILDGECDDIHEQHFLYVGKIDDVFEKVAKSK\*

>UUR10\_RS00870 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit beta

MSQKGIKSLTISIASPEQILS\*SKGEITKPETINYKSLKPEPNGLFDESIFGPSKDYECYCGKYRKVKHKGKVCERCHVEITESIVRRERMGHIELAAPVAHI\*FTKELPSPSKISLLLDITYKEVDQVVYFVNYIVLDEGNNEYDGKSIFNKKEVLDLTSPKNSIRSRNKLRRTLRNIQERIEEELNHEREALIQDFDYRLAVTYDQMLKDSNIPFSVKDVMAFIEKHTGVRFGIGAEAIHELLEKLNLEEEHEKIKQAIQNSPNAYDQKTKRLLRRLECVR\*IKDSGSKPE\*MVMTRIPVTPSETRPIISLDGGRFTTSDTNNFYRKIIIRNERLKQMQATDAPEILLDNEKRLLQEAVDSLFDNNSRKKPVVGKDKRPLKSLSNHLKGKQGLFRQNLLGKRVDYSGRSVIVVGPELKMYEVGIPALMILKLFRPYIISELIRKRDEFGNEIQPICANIKLAEQKILAQDDEI\*PVVEKVIKQRPVILNRAPTLHRLGIQAFEPKMVDGKAIRLHPLVTTAFNADFDGDQMAVHIPLSKEAVAEARSILLAS\*HILGPKDGKPIITPTQDMILGIYYLTKEKFPQPIEEMILKDPVQARIEFINHFHIFATQDEAIRAYKLKTIRINDVIGITTKAFDNKSFSKEGILVTTVGKIIFNQAFPTNFPYINDVKNLYGDNQFEIIGMHESILDYLKAYNLKEPLTKKTLSTVIDYLYKVSEIEVVPQTMDKIKALGFKYSMISATSISAFDIPSYDQKYEYFKETDELVAKLREFYLDGKLTDDERYTKVVQA\*SQTKDKVTHDIEKLINSDEYKDNPIVIMAKSGARGNTSNFTQLAGMRGLMSKSYNYDQKNNSGVIKDTIEIPIKHSFIEGLSVSEYFNSSFGARKGMTDTAMKTAKSGYMTRKLVDSTQAVVIKGNDCGTKEGIIVREIRNTKDNTSIESLKDRIVGRFSINPIYDTKNKLIIEGDKLITNEIANMIQNSGIREVEVRSPLHCSSLYGVCQKCFGLDLSTNKLIETGTAIGVIAAQSIGEPGTQLTMRTFHTGGVAGDTNITQGFERIKQLFDCIQPQENEKAIISQVKGTVDRIEKDSNTNGYNVVIKYNKDNFVSYPTRPNAVLRIKTGDNVVAGQKITEGSIDVNDLLKYAGIENVRHYIIKEVQKVYRMQGIEISDKYIEVIISQLTNKVTITNPGDSGLFVGETISINEFTEVAQSMLVNKKKPPSAINQVFGLDHAPSKSGSFLSAASFQDTKKILTDAAARSQKDMLIGLKENVILGNLIPAGTGLKDVEEVIAYGEEMYKKQY\*

>UUR10\_RS02455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phenylalanine--tRNA ligase subunit beta

MILSLNLLHKISPKLKKISLNELCTALMDLGCEVETINTIKPSTNLVFAKVLEKTKHPNANHLNLVKVKANQEVYEIVCGADNFNVNN\*VVLAKINAELANGLKITPRELRGYVSNGMLCAYSEINPEVAHFLGQTDLDGILVLHDSYDHYKTPNQIFNLDDVILDLSIPSNRNDLNGYF\*MAKELCAYFDLEYVIDATINHRSHKEIVNVRILSDDVNSYGMIEVKNIQNYTLK\*NTKSVLVNNQIKIVNNFADNMNFLTLLTANPLHAFDAHKISGQIIVKNAEEDSILLGLDQKEYAIKKGDLIIVDDQKILALAGIIGSNDSKIDNNTTTAYIECANFNPLLIANTARRLKINTTAAMRFSKPLTNYVTKATLKKLLAHFKLDAKLICYFKHLVHNVIKNKIDQVSDFVGTKINLDTAHTFLKRLGYKINKTNLITPSHRYDVLNEFDVYEDIMKKFSIQQIKPQPINFDILSFKNNIAYDFEKKVSDFLVDQGLFECKTYNLKSQTQAYEIDFFNFQQAYEINNPISNIRSHLKLNNLNSLLEVLEYNQNQKNELENIFEISKINPINSNQQTILSIVLCKPLINAKLNDSIVVNNFVTTKALLHVLLTKLNISYVYDTNHIVNELYENNQLALVNENKQVFGFIGQLKNQIKKTYGLNNDIFVINLNLTSYLNQEQAITKVIKPSVYHDIVRDVSVKLASNVDLNDVMDNIEKIKNIRKVEISDLYVKDDEIIYTFKYYINDYSSNLSSEQIAVIEQEVNNYLKQF\*

>UUR10\_RS00900 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (cytidine(1402)-2-O)-methyltransferase

MKLCDKEYILSIIATPIGNLEEASERVIKSLNEAYVILCEDTRMTSKLLHLLNIYDYKKLVSFHNFNEVEKLNEAINYIKKYPTALVSDAGYPTISDPGYKLINECHRQNIGVQVINGPSSLMHALVASGMCSQDFMFLGFLGKTQKQRVEKLKQYKNLQTTFVIYEAVHRLQTTLMDVYET\*GDVLVFIGRELTKKNESHYYGYLSQLPPITEKGEFVIVIDNKTNFDVIKNNDINECLNEIRTLIKQNFKLKDACKEVSKTSGFDSKELYKLMVNQK\*

>UUR10\_RS03470 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YneF family protein

MSFSNFLFKVSEVFSSIIHEATDIVTQADLDNANAHAHSLAVGLGIGIVLFLIAGLVIGYFVSMKIMKRQLKKNPPISKDTIRMIYQQVGRKPSESQINEIYNRAVKQK\*

>UUR10\_RS01625 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 LemA family protein

MDL\*KEQDPSGISPNVSNERKIATASSGEKALYIFIVILSIITIIG\*IFLLI\*\*FKTKNHLIQTKNSVNEASSSIQVAQTKRFDLLNKMIEQTKSYYKFEQKVLDEITKNRSVQMSSDINKNEEVLSKLQNLVNVQFERYPDLKSSNILMELMSTSSYLENEIASSRRAYNSRATD\*NIMIFQFMTVIVAAKLKLDTFPIYAASKQERADVSMKSLSDF\*

>UUR10\_RS02070 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MKKTLVLYARVCPTKSFHTQQIFEAFQKQTNFVCVNLDANQPFDVLKEQEFILGFDRIILLFTLN\*YNIP\*SLSRYFIEV\*RTFPFSLENKEVYKIITTGANQDFYEKKDPNINNISVEEYLNNVNGMLKKLRASIQKSFYYYGAINQDQARLNQFVNELIKYFKNQN\*

**Supplementary Sequence file 2 Essencial core protein sequences of *U. urealyticum***

>UUR10\_RS03090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L1

MAKISKKLSAAYEGIDKQKAYPLFDAIKLAQEKSITKFDGSINIAVKLNLDTTKVEQQLRGSISLPNGNGKNVRVLVLSEDITKEQAAAVGADYFGGADYIQNIEKMLNQIDVIITNQKMMPLLAKLGKVLGPRGLMPNPKIGTVTNDVLKAVEEFKKGRIEYRTDTYGNIHMSIGRVSFETAKIEENANALLSLIRSKKPATVKGQYIQNIAISPTMGPGIKVIINNN\*

>UUR10\_RS00315 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SsrA-binding protein SmpB

MIVSNKHARRNYELLEFFECGIVLKGTEVKSISRANCSINEAYVQIVKNEALILNMHVASFFEGNNFNQDPYRNRKLLLHKKEIIKLQHLVQTQRMTIVPTKIY\*KNNKLKVEIALAKGKQLHDKREDLKKRDLARESRLF\*

>UUR10\_RS00735 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase subunit C

MSSFIDITNVISSHVEANLPAVSAENVQSLANGAGIAYLGKYIGTGITMLAAGAVGLMQGFSTANAVQAVARNPEAQPKILSTMIVGLALAEAVAIYALIVSILIIFVA\*

>UUR10\_RS01165 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 type Z 30S ribosomal protein S14

MAKKSLIAKQKKHQKFAVREYTRCVRCGRPHAVNRKFGVCRLCFRDLAYAGAIPGIKKAS\*\*

>UUR10\_RS01225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S11

MAKKKKLSFTNGIAYIHATKNNTIITLADEQGSVLS\*ASSGSIGYKGTKKKTPYSAGIAAEAAAKAVIDMGLKSVEVHVNGTGASRDTAIRSLQAAGLEVTKIKDVTPIPHNGCRPPKKPR\*

>UUR10\_RS01385 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 histidine--tRNA ligase

MSNYTKPRGTVDLYNEAMNEFKSLENFLLTTTKKYGFQQIKTPIFEFAELFMKSAGESSDLVSKEMYLFKDKSDR\*LALRPEGTAGVIRAVVENKLLLNNPLPLKLMYFEPCFRYERPQAGRQRQFHQFGVEVLGTKNIYYDFELIALANNILKKLAISDYVLEINYISTAHNRSL\*VKSLQEYFNLYRDELTPLSQERITTNPLRILDDKLESQKLVVQQAPKITNFLSNEEKEEFALIKKMLDEHDIKYRVNEGLVRGLDYYSGLVFEFISTSPRLLGQSTIIGGGRYGQLIKQTGGPDYEGIGFGIGIERLLIALLDSNKQILNNFEDKYLIAYFDKELENEAIKLTQSLRINNQLNVDIILDTIKADKIFRLAQRLNAKKLIILAKKE\*LNKQVILKDLLSFEQKTLNLDEIKKIKE\*

>UUR10\_RS01565 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 inorganic diphosphatase

MKLNVTIEIPKNSNIKYEYDRATKEITVDRILYGSMVYPHNYGFLKEALDYDGDELDVLVFADQAFQPGIKVPARILGAMKMIDGGETDTKLLAVIDVDPRYKHINTFKDIPLH\*LAEVQDFFENYKNLQNKKVEILGFEDEV\*AQKEYEECVALMQEHGHLKKDEFVSKMMKQRPEKYSQ\*

>UUR10\_RS01080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-3

MNTPNNQRHMSSNNDARKNQPLINDQIRFRTMVVIDDHGNNLGEMNRIDALNLATSKNLDLVVIAKKGNIPVTKILDYGKYKYEQKRRQKESRKNQTIIKVKEIKIKPMIGEHDLKVRAENAKR\*LEDKDNVKFVIEARGRMCTKDEFILQAYEKFIDLIKDYGTVVQANKKVSNYRYETIIEPIKK\*

>UUR10\_RS02990 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor Tu

MAKAKFERTKPHVNIGTIGHVDHGKTTLTAAISTVLAKKGQAIAQSYADVDKTPEERERGITINASHVEYETKTRHYAHVDCPGHADYVKNMITGAAQMDGAILVIAASDGVMAQTKEHILLARQVGVPKIVVFLNKCDFMTDPDMQDLVEMEVRELLTKYGFDGDNTPVIRGSGLKALEGDPV\*EAKIDELMDAVDS\*IPLPERSTDKPFLLAIEDVFTISGRGTVVTGRVERGTLKVNDEVEIVGLKDTQKTVVTGIEMFRKSLDQAEAGDNAGILLRGIKKEDVERGQVLVKPGSIKPHRTFTAKVYILKKEEGGRHTPIVSGYRPQFYFRTTDVTGAISLPAGVDLVMPGDDVEMTVELIAPVAIEDGSKFSIREGGKTVGHGSVIKTSN\*

>UUR10\_RS00910 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 methionine--tRNA ligase

MLKQKKFFISTPIYYSSGNPHIGHAYTTIIADVLARYKRLFGYDVFFLTGMDEHGQKIQQKAFEENISPKALVDRNSIIFLNL\*KRLHISFSKFIRTTQMDHEESVQKVFSYLYKQGKIYLGQWTGYYCVSCEENYNPAEIIKSQDNIMLCRMGHKLETKSEESYFYKMSDQAPFLKTYYQNHPNFIIPNERANEMVNNFLNNLEDLSISRTTFD\*GIPIAENPKHVIYV\*LDALMNYLTATGYLSNNEELFQKY\*CDNETEIVHLLSKEIARFHCIY\*PIFLNDLQIRFPSTILSHG\*IITKEGKMSKSLGNVIDPNVLIDTYGVDALRYYLMADLSLFRDAIFSEDNLIETYNTQLANSYGNMISRTLGMLKKYRNNIVPKYVGCVLKNDEKLENLINKNIELVQENINKYSIDKALNCIQEILVEANKYVEDNKP\*ELAKNQQKQELDSLLVHLVKVIQVTTTLLSPILIEGSKKAVEQLNFDESFLTLASLASYDIFNYHKVNDSKPIFARIIVEKQ\*

>UUR10\_RS01340 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate phosphoribosyltransferase

MGPVIPNTRLIDFKFDRDLLNKAYTSHYFIKTCKIIELHAPSHSVIMQFTHFSKTPIMVCGTSEVLALLEFCLSRKELKQLKIYYVPDGHVIKPKEALFAIEGPYEIFG\*LENIIDSILARRSSVATNCYNVLNVINDEQKVIYMSDRSDDYSLQPYDGYAAAVGGMQYFVTQKQVEFLKDINYECKVMGSMPHALIQQNNGRVDLACEMFAQTFPNDPLIAVIDYNNNVLNDLEQLRYMFDRLYAVRIDTAKDLIDNSLLSTFDNVRNHDLHGCNPYLIDLVREYLDNNGGEHIKIIASSAIDLNSIKNFNKHNSAIDFYGIGTYLTHLSIHITADLVCLDNVYGAKVGRKIAKNFAEMTLY\*

>UUR10\_RS01390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aspartate--tRNA ligase

MRVYCGRIGKEHLEKNVILNG\*VKKVRKMGNLVFVDLKDRFGIVQIFATKQDEVFDELTQLSREDVINVEGLVLLRKSPNHELKTGEFEVHAQKLLIYSKAKTPPLIIEDETDANEEIRFKYRYLDLRRDVNLRTFELRSKVYQTFRNYLHSEEFIETETPILAKPTPEGARDFYVPTRTKKFYALPQSPQTFKQLLMVAGFQKYFQIAKCFRDEDLRSDRQPEFTQVDIELSFADELEIQTLIENLFKHVFKQTINVDLTTPFVRMSYEQAINDYGSDKPDLRFDLKLKTLDTYFKTSKSQIFQKALSNNQSIRAILVPNVNLNKKQIQSLEKFAKDKGAKGLA\*ISIENEKVIDGSLSSIKEDHVIYQTIFKDYHLSTGTILLIADEFDIASQSLGLVRVNLASMLNLKKPNDFKFV\*IID\*PLYEYDDENQRFVAAHHPFTMPTLETLDTFDIDQKNAKGRSYDIVLNGYEVGGGSVRIINQQIQRRMFKSINMSDEEANLKFGFLLNAFEYGVPPHCGIALGLDRLIMILINSEYIRDVVAFPKNNNGVDMMLDAPASMNDEDLKELGLIIKND\*

>UUR10\_RS00010 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L31

MKDIHPVSKPCVYNCVTCKKEFVINSAAKNTEVAIEVCSNCHTFFIGKQNATTTLRGRAEKLNNRFEAGLNNINKKPEKKKVQGKSEPRKSLNEL\*

>UUR10\_RS00950 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S15

MAVSKQQKHDLTVKFGGSASNTGKTEVQVAILSAEIDSLTTHMIENKKDKASKRGLYKKVAQRKKLLSYLQRVDIERYRALIKELNLRG\*

>UUR10\_RS01095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S10

MNQELRIRLESYDHRLLDDTVKTIVDISNSTGSKLRGPIPLPTKKEIFTILRSPHVNKSSREQFERRTHKRLIILENPQPKTMEALKRLSVPFGVEVTFKI\*

>UUR10\_RS03300 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S9

MQKSNIVEYKGLGRRKSSIARVKLVPGSGKVFINDRQPENYFPNKLVIQDMMQPLVLTKTAETYDVYVKVIGGGFNGQAGAIRLGITRALIQTREDLKTDLRKAGLVTRDSRVKERKKFGLYGARRAPQFTKR\*

>UUR10\_RS01740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 endopeptidase La

MKKPILISRAIVVLPYETTTIEVGRPKSIQAIDLAKQSSSKEIIVISQKNIDTDEVVNFDELYKVGTLVKIKSIVDNFDDGYSIEVEGIKAVYINSDSEVIDAIEYEYEDVITNPILSTKDEVAINEINSEIFNTINKRTKHKDITFENMHALISLEKEKFAYLAAATYINDYDGEIKEKTIKDRINILLQPNLLLVHETILHFLFDQLVDKRVIEEEVEKMIADKINNNLQKQQREFFLREKLKVVKEQLGELSSREEDADKIRAKIEQLELPPNVRERALAELNRFESAMSSNESSVIKSYLD\*LLDLP\*TQQGVDNTDLMSVRTHLDDNHYGIEKVKERILEYLALRMRNPNLKGPIICLVGPPGVGKTSLVTSIAQALNKKFVKVSLGGVRDESEIRGHRKTYVGAMPGRIIKGMKKAGVVNPLFLLDEIDKMTSDQRGDPAAAMLEVLDPEQNKNFSDNYIEEEYDLSKVMFMATANYYQQIPYALIDRLEVIELSSYTAIEKREIAKSHLLKRIFTDAKLNENELIFNDDALDFIINHYTKEAGVRELDRQLGHIVRKYIVETYKNKNNKSKPSVEVDEAVIIKYLGKIKFDFNKKEETTIPGIVNGMAYTAAGGDLLPIEVNHSTNGKGGNITITGNLEKTMNESVSVALGFVKANAEKYGIDTKKVSFKEIDIHVHVPSGGIPKDGPSAGIAITTAIISSLSQRPVRTTLSMTGEIMLRGNVGIIGGVKEKVISAYRAGVREIILPIDDERYLEDVPKYILDDIKIHLVKHYDEVYNIVFGTK\*

>UUR10\_RS00500 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 signal recognition particle protein

MFKAMIGNIVSKQMSKKLKNATIAEEDIKELLSEIRITLLDADVNLLVVKKFIKNIKEKTIGLYVEQNQKPADVVLKVIKDELVEILGKENKPVNTAKSQLKIMMVGLQGSGKTTTAGKLANYFRNKYNKKPLLVAADIYRPAAIDQLRTLAKQVRVDF\*EEGTQRPDLTVKNALHKADENENNLVIVDTAGRLQTNEELMQELVNVKKTLNPDEVFLVVDAMAGQDIINVATEFNN\*LKLTGIIVTKLDSDARAGAVLSLTSLLNVPIKFTGTGEKIGSIDSFYPERMADRILGLGDIMTLAEKAADVIDEKQVRGSMQRMMAGKMDLEDLMRQMSQISKLGSFSGIAKMIPGLNSISENQIDDAENKMKI\*TILLSSMTLKERRDPRVFKKEPSRRMRVLKGSGRSPDELNKLLKQ\*EVSRDKMAELGKMLQKGKNPFSKSGGIFG\*

>UUR10\_RS01150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L14

MIQHMTRLKVADNTGAKEVGVIKVLGGSKKRYASVGDIVVVSVKKATPAGLIAKGQMAKAVIVRTKKSIRRESGLLIRFDENACVLIKEDKTPRGSRIFGPVAREIRDRGYTKIASLAPEVL\*

>UUR10\_RS01105 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L4

MAKIKLLSIDGNFAKELEVTSDLFVEVPHKQAMFDSVLAENAAERQGTHSTLTKGEVRGGGKKP\*RQKHTGKARTGSTRNPH\*TGGGVVFGPKPNRNYNLKVNAKVRLLAFKSALTIKLNEGKMLGLVANSDLETPSTKKMVNFINNANLENQKVLLVIADHFSNIKKSTNNLQKVTTKL\*YQVSVRDLMHANVVVVAEEAFTNYARKVSK\*

>UUR10\_RS01595 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-2

MAKKNIKQKKDNRIAIDVKKHIKKVDVGVFGGTFVFTSPLSIAELAPKLNKSTNEIIMRYFKKGVVYNLNTILDEEQIGELCLEYDLDFKIEKNVNTENLLENIAFDDLEADLVARAPIVTIMGHVDHGKTTLLDTIRKSSVTASEAGGITQHIGAYQILKGDKPITFIDTPGHEAFTEMRARGANLTDIVILVVAADDGIKMQTEEAIDHAKAANVPIIVFVNKMDKYEANPDKVLNQLSAKEIVAEELGGDIVFVKGSALKNEGIFELLDSILLIAELNDYKANPNRLAYGTTIEANLDKGHGPLATLLVQNGTLRKGDYLVVGSTYGKIRNMFDEYDNEIEMALPSKPVKVSGFEEVPTAGDKFLALADEKQARAIANDVKQKKIRLERSMLQSSDIRAKIANGELKNINLIIKADVQGSLEALKGIFNSINIEGVTTTLVRSAIGTISESDVRLAQTSDAIIIGFNVRANRIIKDLADSVGVQIMNYDIIYKFKEDLEA\*MKGTLDPIIVEEVIGEAKVLKLFKHSQVGTICGCRVINGKIKRNALVRVLRDGIVIYNSKIATLQHNKDSVNEVIADKECGLTIANFNDVKENDIIEVYVKVEKNHDEVK\*

>UUR10\_RS01025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome small subunit-dependent GTPase A

MRAKITSVIVNNFYVYIYDLKIETKAIPKGIFKHDSHELKPMVGDDIEVELVDGVYLIVKIYDRYNQLIRPKVANVDIVLVVASIVQPDLNTLTLNKYLAFYEARNVKNVAIGLSKYDLASDSLKQKVDQLILDYQRNNYKVFVLTNEHDISLLKKFIKKHTLCLAGNSGVGKSTLINKLDPSIKQRTQEISQFLNRGKHTTTSTKLISFANGFLVDTPGFGNLEVNLTKNEMANAFSDFANYARFCKFSNCLHIDEPHCAIKKAVNDDQIVN\*RYDDYLKIMKKLPNDVLEIKTRNQNKK\*

>UUR10\_RS01285 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 valine--tRNA ligase

VKKKLNKNYLFKEVESNKLLF\*QENNLFKAQANSTKPPFAIVLPPPNVTGHLHIGHAYDFTLPDILMRYKKLQGYDAFIVPGTDHAGIATQTKFEKILKTNEQVDRFVLGRKAFLEKLKI\*KDEQTYYIHKQ\*NALGLGLDYNNYLFTLDEPVVQTVREVFVKMFNENIIYRAKKLVN\*DIQLKTAISNIEVIHKEIEQKLYYIKYSSEDQKDFVIVATSRPETMFGDKHLIMNPNDQRYVHLHNKIFINPINNAKMSVILDDYIDIEFGTGVMKCTPAHDFNDYELAKKHNLELINIMNEDGTLNEKCAEFKGLDRLQARALIVDKLQKSNHLVKIENYQSNVGFSERTNEIVEPYLSYQ\*FIKMDNLVKNTIKMQNDFNDKVDFYPNRFNKTLLT\*LENTED\*CISRQL\*\*GHQIPV\*YHKKTNEIYCNTTPPKDLEN\*IQDEDVLDT\*FSSGM\*PLLTTK\*NSNDQFFKRYFPTALMVTGMDILFF\*VSRMMNFSQYLVQKRPFKDVLIHGLIRDAQGKKMSKSLGNGIDPFDIINEYGLDTMRLFFASSTTVGEDLNFSTERLGAN\*NYLNKI\*NIAKYIENLDEINESFSIQDVHEFCDVNKWIIAELSKLSVEMNKNMDKYNLVVATKDLYDFI\*NTFASNYLEYTKVLLQDTTFKNETIKTIRYVFNQILIMLHPFAPNISEEI\*LNLNQTNESILLQKYPMVNFEFESIIINKIAKIILEIRKLRLQENINNKTNLCFELVSANDEFYNSNIKLINLLLVLVNAKVSEIKKSSVNSCTYELVIDDFILKT\*YEKSIDYDTQIKKVSEQLKYLENEIKRATNLLNNQGFVNKAPTELIAKEKDKLNNLEKEQANLLKIFADLKQKVN\*

>UUR10\_RS02135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 holo-ACP synthase

MKLVHGIDIIE\*NREELNNPSFAKRILVDDELKYYLQLNSLKEKNRYLASIFASKEAVMKAFKLKYGYNDILILKTKNERQVYLNKILIKELVLSISYTENYVVASVVGLINTVESNS\*

>UUR10\_RS01195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecY

MTNKQKKKNAFRQLLMIFKNKKVLVALIVTLSILILFRIGSVIPMPYIKLNGNFGNQGSFFSIINLLGGGGLSQFSLFAIGIGPYITAQIIMQLLSSELVPPLAKLSKSGERGRKKIEVITRIITLPLAVMQAVIIINLMTRANGFISIVPNAPFAIGSPLFYVTYIFLMVGGTYISLFLADLISKKGVGNGITLLILTGIVASLFNHFIAIFSNLGSLTSSKVSQIIGFILYILFYIMILIGVVFVNNSTRKIPIQQTGQALILDHEKLPFLPIKIMTAGVMPVIFASSVLAIPAQVAEFLDKQSMGYYVIHNYFIVDS\*TGLAIYVVLILLFTFFFSYVQLNPPKMAEDIKKAGRFIPGVQVGMDTEKHITKVIYRVN\*IGAPILAFLACLPHLVALVAKTINHGIPVIQPSTIFGGTSIIIMVTATLEL\*NAIKSTSTSTSYAYQRKELETAITISVESDKSSKSQI\*\*

>UUR10\_RS00890 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribose-phosphate pyrophosphokinase

MPKNHDILLFSLSNSRQLANKIANLLKIELSPIRIDKFADGEFIVAPQVPVRGRRVIIIQSTSKPVNDSLMELLIAIDSIKRASAKAISVVIPYYGYARQDRKAKPREPITARLVAKMIESAGATSVLT\*DIHSLQTQGFFDIPFDSLEAV\*VLMKHYFDAYKDSSNITIVSPDYGGVKRAREISIATGATLAIVDKRRSGKNQVEINNVLGDVQGRDCVIVDDMIDTGGTILGAAKIVREKGAKSITIIATHGLFNNNARERFEQAIKDKIINKVCIADTIENEPFEGLEIVSIAPAIAKCIEIYSKGAGSMSFVHDENSKFLFTKKNNK\*

>UUR10\_RS01140 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L29

MSSIAQDLRKKDSLELEKIVIELKAKLLELRFAAANGEAEKLHTAKEIRKTIARALTILNERELAEKLNNKEANK\*

>UUR10\_RS00430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase (ATP-hydrolyzing) subunit A

MALKKPKKSRLTTEEIKQQLEGSTIKEQSITKEVETSFLDYSMSVIVARALPDVRDGFKPVHRRALFAAFENGMTHDKPYKKSAR\*VGDVIGKYHPHGDQAVYQTIVRMAQEFSMRYLLVDGHGNFGSIDGDSAAAMRYTEARLSKISYELLKYIDKETVDFVPNYDASEQEPSVLPSGFPNLLTNGTTGIAVGMATNIPPHNLTEVCQAIKAYAKNHDISIPEIMEHLKGPDFPTGAEIYGDSGIINYFNTGRGSVTIRSKYEIEDIGQGRVAIVVTEIPYMVNKVNLIEKIVELVTNKQIEGISDLRDESSRDGIRIVIEVKRDVIPEVLLNKLFKTTALQTNFSVNNLALVNGVPMVLNIKEMIKYYFEHQIEVLVRRTKFDLRKAKERIHIVEGLVIAVNNIDEVIKIIKASGDDDIASKALIARFGLTELQTKAILEMRLRALTGLNIDKLKKEYEDLLLIIEDLEDILENYDRQVNIICENLDYLIEKFGDERRTEIMYGVSSHIDDEDLIPVEDIVVTMSKRGYFKRLPIDTYKNQRRGGVGVQGLKTYEDDDVEKILVANTHTDLLFFSDLGRVYRLRGHEVPLGSRQSKGIPAINFLPIEKSESILTILPIDNYEQGSLFFTTSKGIIKRANLSDFESIRANGKIAITLKEGDKLFSVMQTLGNDEVFIGASNGNVIRFNENDAREMGRIATGVKGINLEDDEYVVGTGLSSHGEYVLAVGSKGLGKLTDINDYRLTKRGAKGVNTLKVNDRTGNLVSIKVVNRDEEALIITTSGKVIRLSIQDISVIGRNTSGVKLISLENKEEVKSIAIFKKEEIDDNDDEQKTSHGNEHNLE\*

>UUR10\_RS01230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit alpha

MRKFLKYQLDVPSINSEDKNRTVVKIAPLEIGFGDTLGNALRRICLSSIPGASMFAVKFGGYSHEFQPYEGVKEDITHIILNLKNLAIKIDELIYSEDYFNNLLIDK\*PKMKINFKGPGVITAKDIVCPVGFEIVNQDLYIAEVTKPIDVEIEIFAKTGRGRVDFNTNKDFVSTLHIIATDSNYSPVLHYAYNVEMIKDSKSSMSEILTIDIATNGTISGSEAIAIAAKIMQAHLEPIMNIDKTINEMIIMREREEEEKRQNASISIDDLDLTVRAYNALKQSGINTTAELIELTKSQLEKIKNLGRKSVTEIIQKLTERSLELKKD\*

>UUR10\_RS03240 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (guanosine(37)-N1)-methyltransferase TrmD

MKISILSLFPELYETWINHSIISNAIKNNQVTIEIINFRLYTNDKHKKVDDYQYGGGAGMVLMIEPIVSAIRAIRTPNSYVILTTPKGQVFNQELANEFVSKYDHIIIIAGHYEGFDERINYYVDAQYSIGDFVLTGGELPSMVISDAVIRLLDGVISSSSLESESFNNYLLDYPVYTRPVVFEGHQVPDVLLSGHHKNIADFRKQQQEMITKKNRPDLYQKYLNSKK\*

>UUR10\_RS01235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L17

MSYINKPGKTRA\*RKMVSRQQVSDVISHGSIVTTKTKAKESQRHVDHLITLAKKNTLASRRAAAAILLGTNQHSADDLLRKLFNELGPKYANRAGGYTRVIKLGNRPGDNTEEAVLQLV\*

>UUR10\_RS01445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor P

MATIIQAKDLRAGHTFLYKGSIYQVIENSFNKTAMREGIVKCKVKNLRTGAITVEVLTGEKVEQAIIEKSKMTFSYDDGSGYVFMDNETYEQISIPYNQLS\*EKNFIEEGTEVSVMRYDGELMGVSLPDQLVVTIVEAEEAVQGNSVQNATKRA\*LASK\*EFQVPQFIKSGEKVIINPSNGQYVGRAK\*

>UUR10\_RS01155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L24

MNRIKKGDTVVVISGKNKNKSGVVIQVNPKEQTALVEGVNKIKRHQKKDQTHEQSGIIEKEAPIRLCKLALVDPKGKDKGKATKVKYLLKDNKKVRVARKSGSELDANKK\*

>UUR10\_RS02205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nucleotide exchange factor GrpE

MSKNNENIKHQNEGKLHDQVDKKETKNHAKQEFKYKELYEHELKKNKELQNVNELLINKNQQLEIQINQLNQDFVKQLETKTKQAQEILEQKVNELEARHETKVNDAVFKIFKFKMEPLLDAINHFTKIVNQNYDDPKIQAFIEGFKMFSQNMIDGLENLKITKISPQINDMLNDDTMEVFEVVQNTNKPSMHVTEVISDGFKYNDKVIKFAVVKVAK\*

>UUR10\_RS01170 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S8

MYLDPIAELITKINNGRKAHKAEVSFATSKLKTAILELLVKEGYIKSYDIRPTENNKSETVVKLKYKNQTTSSINGFKQISKPGLRIYSTHLNLPKVLNGLGIAIITTSKGVMSDKQARKENVGGEVIAYV\*\*

>UUR10\_RS03455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L34

MKRTFQPNNRKRAKVHGFRARMKTKNGRNVLARRRLKGRHSLTVSGEK\*

>UUR10\_RS01120 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S19

MSRSLKKGAYADPSLLKKVEAANASVSKKPIKT\*SRRSQIFPNFVGLTFEVHNGKTFLKVYVTEDMIGHKLGEFAPTRNFKNHTEAKR\*

>UUR10\_RS02910 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 UMP kinase

MSKQRIVIKISGACLRQDDNSIIDVNKINDLAKQIKEISKKYIVSIVLGGGNI\*RGHIAKELGMNRNLADNMGMMATIINGLALENALNNYNVDAIVLSAIKCDKLVYESSANNIKKAIEKEQVMIFVGGTGFPYFTTDSCAAIKAAETESSIILMGKNGVDGVYDSDPKTNPNAQFYQHITFNMALTKNLKVMDATALALCQENDINLLVFNIDKPNAIVDVLEKKIKHTIVSK\*

>UUR10\_RS00095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit delta

MKYSFANLLIQSPKTSLTLGVEQIMLAFINEKNHEQQAYYINKVKNNQYFDLKIYDSLSMKKSDVIDLQNAFLYDGIEDINLKFYLIKNIDLASKYVLNALLKFIEEPPKNTIAIFSTKNLNQVLKTIKSRCQLFYLPANYDLYHQLIKQINQPISATECDLIFDDLDELKTLLENNEINEVLAYHAKLNDIKSFETLNDLKETFKNLSILQIHYLLKLIFIKINNINSKQAILDLMRANLKININKNSLFTIIYTIIIENRGD\*

>UUR10\_RS03255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease J

MENAKKSPTYVYALGGLEEIGKNTYVVEHEDEIILIDAGIKFANASLPGFDGTVANFEYLIKNNHKIHSLVVTHGHEDHIGGIPHILRHVNIKTIYAPTLAAKLIERRLSEYKDIKPPRIIIFEDESMYKTKHFEVDFYRVCHSIPDSFGICVKTPNGYIVTTGDFRFDFATAGDETNLAKISQIANRGISVLMCESTSAEIPGFSESERYVIDNIRDYMVNIKGRTFISTFASNLGRVEEIIAIAVGLNKKICIIGKSMEANIKTSRKLGYLNVPESSFITHKELPFYKDHEIVVILTGSQGEKMAALNVMANNNHSKITLKPSDTIILSSNPIPGNYAQVEAMVNKLYKLGLTVYENSPNKKIHASGHATRSEHQLMIKAINPSYLFPIHGEYKMFRALKQNAVDQGFDKDHVIIATNGQKLQLLDGVLSHSNIHVDAEPKFINGYEISSKISKLLSERVVLSSDGILNLVLNADFKKAKLNSAVSISTRGCFFAKESTNLINKISNVAKSSLEDALAKKEFDEKKLKEIVSGSVKSIV\*K\*RKKNPIINITIINNDLVEQFRKDNNYVEFIKQTEVEEIEQEVDIDDLISNGL\*

>UUR10\_RS02915 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor Ts

MTKAELVKELRTRTQASMSECIKALDASENDIEKAII\*LRENGAIKAANKLKNAATDGVTLAKKVGNKAILIEVNCQTDFVAKNENFLAYANQILEEALAKVESKEDFDKLIINGKPIAESGLDLTAYIGEKIVFRRGEILKANDQQTLGVYTHNNNRVAAIILVDGKVEDEVVRNVAMHAAAMRPRYLNEQVVDQV\*LAKEREIIVNQLEHEGKPAAFAAKIIEGRLNKILKENCLVDQSYFKQPELTIEKYLKNNNAVAVGYYSYEVGEGIEKAPQMSFADEVAAQMKK\*

>UUR10\_RS00740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit A

MENYNPLDIMIALPHIAAIIIVTLIIATISLIYFSMIRKLTVHDVPNRFVIIIGMIVDYFRGLVVDTMGAKHVKLAPYVLFTFCYIFTANLVSLFGFKEATTASSVPLAMALATVVGGQIVALKYQKASFFLKFTFKIKGFPIMVNPLEIVSKLTPIISLTFRLWGNISAAAILLNITY\*AFAGFTNVVP\*VGVSLIAAVIILPILIGYFTCFAGTIQAFVFTLLTSIN\*GLEIKEGEEHYAHLAHKKAEKLAAKKLAELDAQNQAQNNEVQVVL\*

>UUR10\_RS01130 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S3

MGQKVNPNGLRFGINKQ\*LSR\*VPTDQLQMAK\*LVEDDKIRKYLSTKYKNAGIDHVEIERDQQRVNVYVYAVQSGLLIGTEASEKKLIELAINKIVGRKQLVSLKVVEVQIPELQASLMAREIADAIENRVSFRIAQKMVIKKVLKAGARGIKTHVSGRLGGVEMAREEGYTQGVMTLHTLRADIDYSMQEAHTTYGIIGVKV\*INRGELFGNKLVNSVAHAANKEFSRSSKPKKGSFNRSSRSKNTKPAPKQAVSE\*

>UUR10\_RS02400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cysteine desulfurase

MDNYKQFFP\*FKNNKDVVYLDSSATSLKPQVVVDAIVDYYTKYSTNPHNSDSNFAFHPHKIMYETRANVAKFINADFEEIVFTSGATESLNLIANGLRPYLKKDDEIVLTYVEHASNLLP\*YKLRDDLGIKIVFANQKNQFPQLSDFLNAISPKTKIVSFASGGNLIGNILDENVIIKHIKQLNPNILVCVDATQSVQHRMFDVEKCQSDFMVFSAHKLLGPTGIGVAYIKNEWIKKLQPLKYGGGMNFSIDLDSYQLYDDYMKFEGGTPHVAGFYGFNAALKFLMDIGYEKIHDHELKITQYAREQLALIPQIKTYVQDPTSSTITFSYEGVFCQDFASYLGTKNIIVRSGLSCAKIINNIIQTECAIRASFYIYNDFSDVDKLVQAIKEYQKGDELNGIL\*

>UUR10\_RS00850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phosphopyruvate hydratase

MKIVDLLAYQVLDSRGQPTVAVKLFLENDQSVVAMVPSGASTGTKEALELRDGDANYFFSKSVKLAIQNVNNIIRPHLLNKNVLNFFELDNLLINLDGTENKTKLGANALLGVSIVIVKGGAVAASKPLYQYIKEDLMHNYDEHYYAPIPLMNFINGGAHADNNLDIQEFMIVPLNAISFSQAIQTGSEIFHELAKILKANHLNTAKGDEGGFAPMLNDNYAALELLVRAIKKAHYFPSKKQGVCLALDVASSELYENEKYVFKKALSHNTNLEQTSFSSDE\*AKY\*SDLASQFPIISIEDCFDEND\*NGFSLFLKNNPHIQSVGDDLYCTNLKYLQKGINFKATNAILIKPNQIGTISETLDVIKYAQENNINTIISHRSGETEDTFIADFAIGVGAGQIKTGSLSRSERIAKYNRILEIEQELKDKLVYEPNKFFKFN\*

>UUR10\_RS00730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit B

MLDKRREYIAKEITDAENAKQEALQYLENAKSEHLAAQAETAEIIAKAKSESLTLRELLEKEAREAADKIISSAKISIANERRENLERLQTEAREAAYIAAEALMKKELSREDNDKLVDQFIKELETNEK\*

>UUR10\_RS00855 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 6-phosphofructokinase

MSQTSFLNSTKNILIITSGGDAPGMNASLVSLIHELMDSNFNVFVGIEGLLGLYNNLIEPIKNKHIFDVYFKEQGTIIKTSRFIKLNVNDEKTQVIKKNLLEHNIHKIIILGGQGSMQAGLVLTDLGFEVYGILHTIDNDFNQTQMCIGASSAAHFNQQLLTCLNYTAKAHNAFSLVEIMGHQCP\*LVNNSIGQLKPILTLTNQDPKYSVDQVIDLVKTKITLAKEYDPLIIVQELIYDQQ\*YEALKKAFAQKLHQTLRVTILNYLQRGAPVIDFDLQLAKDSASVLVDFIINKNEIENTSNMYVVVNKNDIKPQVIKFND\*

>UUR10\_RS02250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 5-3 exonuclease

MKKAIVIDGNSLIYRAFHATYKQAE\*AVENQLMPTNAIKLVASMIFKILNEDQFSYALIALDASKKTFRAQEYAAYKATRKPMDEKLVVQLPYIKKLFTAMGFHIISQPGIEADDFVGSFSNLMSKSNIDTIIYSTDRDMLQLINPNTKLKLLKTGTSIVQEINLANFALLNNGLLPKQIIDYKGLVGDSSDNLVGVKGIGPKTAINLILKYTNLENIYANLEEITPSVKNKLIEHEKMAFLSKKIATIQTDLLLDETLENFILKPYNIQELDTLFESLKINNMHNYYK\*

>UUR10\_RS00210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA uridine-5-carboxymethylaminomethyl(34) synthesis enzyme MnmG

VKKYDVIVIGAGHAGLEAAFATSNLNLQTALITLDEKGIGMMPCNPSIGGPAKGIVTREIDALGGIQGKAADATTMQMKILNSSKGPGV\*AIRAQIDKIAYQR\*FKQQIKQQKNLDLIIAEVSDLLVENNIVKGVILSDQKIIQADYVIITTGTYLKSITHRGSVCVDEGADGTKNAKFLSDVLVKLGFELIRLKTGTPARIKKDSIDFTNMVLEPGTNQKIAFSHYHPVYKPYDKQLPCHIIYTNEQTHQIIRENLNKSAMYGGMISGIGPRYCPSIEDKIVKFSEKPRHQIFVEPESYELDSMYLGGFSTSMPIDVQEKMIRSLPGLEDCEILKYAYAIEYDAIDPTQLYPSLESKLVNNLFFAGQINGTSGYEEAAAQGLMAAINVSQKHKNKEPIVLGRDQAYIGVMIDDIVTKGVVEPYRLLTSRAEHRLALRNDNADDRLMKIGFEIGLLKPEVYDQYLNNLKQINEVLN\*LKTTTVGQIDDLKFTTLKTNSYLIDYLKRPEVKLNDLLIYCPIKIEDEQIINKVQIQVKFEGYIKNQEENLKQLKRLNNIKLHGIVDYKEVPNISLETIDKLNKIKPLDLEQASRISGVNLTDIAMIKYYLERIKND\*

>UUR10\_RS00410 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 aminoacyl-tRNA hydrolase

VEKYLIVGLGNPGSNYAKTRHNAGFMVINEICNKLNLFLDNSKFNGMFAKTIYNNCVVFFCQPTTYMNLSGEFVSKMLKFYDIPIKNLIVIYDDVDTKLGVIKLRKKGSSGGQNGIKNIINLLKTEEIKRIRVGIGKDPHAKLDQYVLSNFKIDELVIIKPAIIKGALAALEAIGEDFDKVMNKFN\*

>UUR10\_RS01270 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cation-translocating P-type ATPase

VKKNNEDQTDSFVSFDPQNTDPLTGLNDEQVLKSRQIYGFNEIKKKKKSNILTKFFKQFLDFMVILLVIAGIITLILAIVKPPHDITELIVQYVEVGVIGFILFLNAIFGTIQEVKAEKNTEALSKLTSPQAKVLRNNQILIIDSREVVIGDILILEAGD\*IPADALLINSSSLEVDEAVLTGESLPVQKDAKAIVKQGAGIGDRLNQIFSGTSITNGTAKAIVTNIGMNTEIGKIAKLINDQKVQLTPLQQKINKLSKIIGAFASVLCIAVFIIYIYLVGGGN\*EIN\*HPALVMAISLSIAAIPEGIVAIVTIILSFGVKQMAKKNALIKRLPAVETLGSANVICSDKTGTLTQNKMTVTKVFTNILKTTDLINEKDVYELIK\*ASIANNGSRNFNDKKQEYEFIGDPTETSIIEAALKLNIDKSELDKEFVRIHEFPFDSTRKLMSVIVRNNDNYYLVTKGAIDAIEKIVVEPITNDVYKANDFLGKQALRVLGVGIKKLAFLPTNFNQDELERELEFIGLVGMIDPPRPEAQEAVEIAIKAGIRPVMITGDHINTASAIAKQIGILNEGQEVLSGHELSSMSDEELINNVERYSVYARVSPTDKIRIVKA\*QSHDKVVSMTGDGVNDAPALKAADIGCAMGITGTDVSKASSDMILTDDNFATIINAVSLGRSIMDNIKRIIVLLLITNLAGLISLIFGIIILGINPMSSLQIL\*INVIAETLPGIALGVHLADANLMRHKPLKKSAPIVNKKM\*MTIFINGFFIGLISILLFYLGASSHFDFDFIAMRNEFKELANLEAIYQNV\*N\*LGENHEITNIVHEKIIAIKTPIMAGSSLTFIFMGMSLAFNALSLRSNHSIFINF\*KNSKYIVYSIIISVIMIIVITYTPHLNEVFNMNPYNMNGYE\*FNVFPFVLFTIPLGIFEVIKYVKYLKLRRSFDYKNKTYASLNQEIKSLNLKINNTKINYEKEYYKALLNNLIVKRKILINKCHKEI\*

>UUR10\_RS01005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 guanylate kinase

MKRGKLIVFSGPSGVGKHTILSKIIDRKELNLAYSVSMTTRKKREGEINGVDYYFVNDEEFKKAISNNELIE\*AEFVGNKYGTPRFVVEKLRNEGKNVILEIEVVGALQVLELFKNDDLISIFLLPPSLDELKNRLLKRNTETLETIEKRIQKASHELSIKDHYKYNIINDNPDHAANQLAEIILDEIKR\*

>UUR10\_RS01585 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusA

MSNSFKSKEFIEYFKDTAKQNEIELEVLSSIIKEAFEKTYLRTHPGENFETNINLKEGTINCFRNLVVVENEKAHNEDLETCLDDAVEILLDDARKINANAQIGDTIKQYISIDDFKSIEVGQIGSLLRQKITEIHNKRVADF\*KPSLMKMIRAKVAEINYNKQRNEITGVKVELDDQ\*KTLGYLSRKDRIGDEKFKVGETYDFIIKEVKEQSRL\*PVLLSRTEPELVEEILKREVVDIKNGNIEIKKIARIAGFKTKVAVSTNLLNIEPVAVVVGNKGLTITSISKQLNNERIDVIRYADDKRIFIANAIGLDKLKGLLVQENESDQRSAIAIVSKEDLPSVIGRGGANIRLIAKITE\*NIDVKTIEQAFEENVVYEKFDEKIYRS\*NIESINKKNVTNDEMLALIDNMQDEKVEKTEQVKDQLKQQEKQTIVSNNDDSENDDEQLEYLEGFEDFKF\*

>UUR10\_RS00835 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 triose-phosphate isomerase

MVKMKYIIANFKMNATEELINHFLNNLISFDEQKLTIGLAPGDLYLKTFVDLSQTKKVKLYAQNPSAYSKGPYTGQISCLQLLDSNIKNTLVGHSEIRIDCSQSIIDQKTKICMDLLDQVIICIGEPLDVYEQKKSLSFVLSQLANVINYKGLKKIIIAYEPI\*AIGTNLTLDLKHINHMIEGIKTYLYNCTGLNIPILYGGSVNANNIKELCTQKLIDGFLIGNASLDVNNFNQIINACK\*

>UUR10\_RS01665 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L32

MAVQQRRVSKSRKGMRRSHDHLTVSNTVACNECGKALLPHRACRDCKTYRSIKLSIK\*

>UUR10\_RS03000 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S7

MRKLKPQKRQVLADPVYNSRLVTKLINAIMYDGKKGLAQSIIYSAFEIVEQKTGKPALEVFNKAIDNVMPIIELKVRRVGGSNFQVPTEVTPERRQTLGLR\*ITLYARLRHEHTMIEKLAHEIIDASNNVGAAIKKKEDTHKMAEANKAFAHLR\*\*

>UUR10\_RS03395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome biogenesis GTPase YlqF

MDIINKKIN\*FPGHMKKATDEILKNLKNVDFFIQLVDARCPITSSNNELIKQIASKPIINLANKADLSD\*NTNFNNDFLLISTKKVNDKNLVIKHLYQLFEQKIKTYQKKGLVNPKFIGMIIGLPNIGKSSLINFLAPKKTLKVENRPGVTKTQSIRQINQHFYLIDTPGIFLKDIQKERDGFVLTLINCIKKEVLELEAIIRFAYEFYLKNYQKDLFIRYKINQVMNFEDFIDYICQLYNYKLVNNEFDYSRAYENLFNDFCNGLICKVNYDQ\*

>UUR10\_RS02195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycerol-3-phosphate acyltransferase

MDQVYSVAMAYILTLIISPLYSYLIGSLNASIILSLLLKKQDIRHFASKNAGMTNMTRVYGKKLGILTLFLDIVKPIITISLTYIIYKYALNAPFVLSNGFNQAILVYFGGIFTIIGHCYPIFFKFQGGKGVASYGGFLITIDPIVAVIGIITLLIILLITKYMSLSAMITATITCFLVLIPGINYIPYYNEHFVEYLFDLNHVIKGTWYV\*LFLLISASILIYRHKTNILSIATKQERKTFLFQPKPKNNI\*

>UUR10\_RS03135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 AAA family ATPase

MSTKDLNDAILDLFCLVINNNDF\*KDVILRLEAKDFPEKVQQNIFNTIANLNEQKYKISESNILNGLGNYVIVDEQDQNYLLHKNYLVQILERTDYLVDLKDCIEIIKNASIKNKLDLFANEILSTQISLTNAKDQFKEMHEKFLEILASRTEDTIENMELIANRYFEKLNKIGNSGIIPGVIKTKYDNIDKFTNGYKPGELVVIAARPGIGKTTFCLNVMVNNVNEIIEYNQNIQPNQKEKIIVMFSLEITKEQILQKFISIKTGISNREVIENKYRIAKGYDTRSFAMQAINEIKS\*PIFVDDRPNISIVDIEAKLYDLKKRYDIALVVLDYLQLVSAGNANKNMTRTQEVGRVSSALKVIAKEINAPVIAIAQLSRKAEERDVSSNANMKNNPLVKTIDNSPKLSDLRESGSIEQDADVVAFLH\*DRKQRNAMQNDNQETRMRDDLIEAKFIVEKNRNGSTGETDIIFSKLNSKFIRATTSKE\*

>UUR10\_RS00955 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribonuclease III

MDNKKFLDFLKQNRIEPKNLSIYLEALTHKSYANEHKLTKNYQRLEFLGDACVEWVISNFIFNYKIKDNEKMRSLDEGEMTRARSNMVRSEILSYAAKDLGLTDFLMIGVGLEQDQSARMEKIYEDIFEAFIGAVAQDQGIKKVSLILEKTLIKYFREGQINYQKDYKTIFQEQAQRINKKPIMYKLVRNEGDKKEVHLV\*NDLIYGIGIASTRKEAEILAAKNAILKLDDYTKKA\*

>UUR10\_RS02540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase IV subunit B

MANKYDGSAIKILEGLEAVRKRPGMYIGSTSSAGLHHLV\*EIVDNSIDEVMNANAKNISVVLHEDNSISILDDGRGIPVDINPQTKISTVETVLTVLHAGGKFDESAYKTAGGLHGVGSSVVNALSA\*LICEVYRDQKIYQAKFSNGGHIDQPLKVIGTTKKTGTLIHFLPDPLIFKNLFFNPNTIKERLHESTFLIKDLKISFEDKINNKKYEFINDQGLIDFIKFINETKKTFSDVIFFKNTINKIDVEVAFQYSDQNNEIMVSFANSVKTSEGGVHENAFKNALTSVVNNYARKHDLLKEKDKNLEGDDIREGLSSVISLRIPESLISYEGQTKNKLFTPEANEAVKKTIEDNFSF\*LEENKTQALDLVNRAIVARDAKLAAKRAREETKKVKKIKEERGMGGKLTPAQSKDPTLNELFLVEGDSAGGSAKLGRNKKYQAILPLRGKVLNVLKARLVDVLKNEEIASIFTCLGTGIGAEFDLKKLKYHKIIIMTDADTDGSHIQVLLLTLFYRFMRPLIENGNIYIALPPLYKLTNKNTKKFFYA\*DDVELDQLKKEQKNYEIQRYKGLGEMNADQLFETTMDPSKRLLLRVNINDILQAERQINTLMGNDVSIRRQ\*IDNNIDFSVIDELQINNEESK\*

>UUR10\_RS02905 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome recycling factor

MNFKIYETKIREEFELVLK\*MHNEFIKLRTGRATPAILDGILVDYYGSMTPINQLANISVPEPRVLAIKPYDRSSIKDVASAINASNLGVNPQVDVDIIRLTFAAPTEEVRKNLAKKAKQVGEEAKIRVRHIRQEAQDLFKKNSSTVEDDKKFFQTELDNLTKELNKEIEAVVSHKEKDIMTV\*

>UUR10\_RS02235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 methionine adenosyltransferase

MQYKKIITSESVGAGHPDKICDQISDAILDECLSQDQNSRVACEVLACNRLIVIAGEITTHAYVDVVKTA\*EIIKPLGYDENDFTIISNVNKQSVDIAQSVDKTNKNLIGAGDQGIVFGYACDETPQYMPLTSVLAHELLKEIERQRRSKEFIKIQADMKSQVSIDYSNSTPLIETMLVSIQHDEDYDVEYFNKKVSAIMEQIAKKYNLNTNFKKIINSSGRFVIGGPIGDTGLTGRKIIVDTYGGVGHHGGGAFSGKDPTKVDRSASYFAR\*IAKNVVAAKLAKQCEIQLAFAIGQPQPVAMYVNTFNTNLIDETKIFEAIKKSFNFDIKTFINDLNL\*TTKYLPVATYGHFGRDDLDLS\*EKLNKVEDLIKNSK\*

>UUR10\_RS01205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 type I methionyl aminopeptidase

MVIVKTEKDITAIKEAVRI\*KIAREAIYEQVKAGVSLKELDLLAKEVIEANGGIAAFHNYLGFKGHICISVNECVIHGVPTDYILKDGDKVTFDVGVKYDNHYCDAAFTIIINNSNVEALKMSDICKKSIDEAVAIIKPKVTTHAISNVIQKFIEKNGYFILRDFAGHGCGNEIHEDPLIPNYRSLLYRNVTLEENMVICIEPMILSGSNAYYIDPNDQ\*SVKSKNHQMTCH\*EHMILITKDGCEVLTA\*

>UUR10\_RS01370 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HU family DNA-binding protein

MSEKIKAKTRVQMIDELSKMLNIDKKQTKTFMDTYEAFLILELSRAKEVRFGNIGKFKVTVRAERKGINPKTGETVIIPEKTIPKFTFTKGIKEIINAGISVEDETVFLDDNDYEDDGDEFVEEYIAPESN\*

>UUR10\_RS03415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 class II fructose-1,6-bisphosphate aldolase

MFSLVNAKKMVQNAYKNHYAIAAININNLE\*IKAALLAAQETNSPLLLATSEGAVKYMGGYDNCYAMVVNLMKQMNIKTPVCLHLDHGTYEGCIKAIDAGYSSIMYDGSKISIQENIENTKKLLAIAKSKNVSVEVEVGSIGGTEDGITSEGELANVNDCYQMCLLDIDMLACGIGNIHGLYPEN\*KGLNFDLLKEINIKVNKPIVLHGGSGISEEQILKAISLGVAKININTECQIAFSNALQDHLIKAGDLVAAKQYDPRKVLAYGVDAIKNTIIEKFTKFNSLNKA\*

>UUR10\_RS03055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L33

MAIKRGVRLQCNESKSINYITTKNAKNNPDKLSLNKFCPKCRKVTTHVEIKKK\*

>UUR10\_RS00425 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase (ATP-hydrolyzing) subunit B

MNDSNKENKYTAESIKVLEGLEAVRKRPGMYIGSTQSEGLHHMI\*EIVDNSIDEAMGGFATVVKVIIKKDGVIRVEDDGRGIPVGIHEKTGLSGVETVLTVLHAGGKFDNDSYKVSGGLHGVGASVVNALSKNFKV\*VNKNYVQHYVEFINGGHAIEPLKIINDKDIKEKGTTIEFIPDFEIMEENE\*DELKIMARLKQLAYLNKGVNIEFESEMTNRKEK\*HYEGGLKEYIADLNAEKEPLFDAIVYGEEEKEVKVPGHNDQTYNIKCEVAFQYNNSYNNSTHSFCNNINTTEGGTHEEGFKLAITRLLNKYAIDKKYLKDTDDKITKEDVSEGLTAIISIKHPNPQYEGQTKKKLGNSEVRPYVNEITSIIFEKFLNENPEESKKIVAKVMQAAEARRRSHEAREATRRKSPFESNSLPGKLADCSNRDSSVTEIYIVEGDSAGGSAKTGREREFQAILPLRGKIINVEKAKIDKIFANEEIQNMITAFGAGIGPEFNIEKLRYSKIIIMTDADVDGSHIRILLLTFFYRYMLPLIQNGNVYIAQPPLYKVSYGKTIKYAYSDQELEKIKSTLLNTKYNIQRYKGLGEMNPDQL\*ETTMDPKNRLLLKVNIEDAAIADKTFSLLMGDDVTPRKEFIEKNAKYVKNIDA\*

>UUR10\_RS00640 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tyrosine--tRNA ligase

MHNLIKDLKARNLINNITNEEKLKKALAENKGIYVGFDPSADSLHLGNYIMIMLLKRFRLHNIKTFALVGGATGMIGDPSGKSAERNLLDKTILEHNITKIKYQLEKFTNSQVINNYDFYKNMTFLDFLRDVGKLININYLLEKEIISSRLDVGISYTEFSYNLLQGYDFLQLYKNDNIAIQAGGSDQ\*GNITTGIEIIRKSLGDDNIACGLTINLLTNSEGKKFGKSEKGAIYLDENKSSVYEMYQFLINQTDADVEKLLNFLTLIDVDEINKIMQAHKENPALRIAQKALAQAVVVDVHGQQKYEQALHISQVLFNGNINELNQEEFNIAIKSLPTTKLDKDEIKIIDLLNLANISSSNRVARDFLSTGSILVNDIKVNDENFLVKKQDAINQEFSIIKKGKRNYFLIV\*NKD\*

>UUR10\_RS01695 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 molecular chaperone DnaK

MTKEIILGIDLGTTNSCVAVIENKKPIVLENPEGKRTVPSVVSFNGDEVLVGDAAKRKQITNPNTVSSIKRLMGTKEKVTILNKEYTPEEISAKILSYIKDYAEKKLGTKINKAVITVPAYFDDAQRQATKNAGIIAGLTVERIINEPTAAALAYGIDKLDKEQKILVFDLGGGTFDVSVLDMADGTFEVLSTSGDNHLGGDD\*DQVIIN\*LLKSIADEFNIDLSKNKMAMQRLKDAAEKAKIELSGVNTTTISLPFIAMDSSGQPINFEKELNRATFDNLTKNLIERLKKPVLDAMKESKLSLADIDQVLMVGGSTRMPAVQNLVKELTGKEPNHSLNPDEVVAIGAAIQGGVLAGEIDDILLLDVTPLTLSIETMGGVATPLIPRNTKIPVSKSQVFSTAADNQPSVDIRIVQGERSLAADNKLLGNFELSGIEPAPRGVPQIEIKFNIDANGIMSVNAKDLKTQKETSITIKDSQGLSQEEIDKMIKEAEENKEKDAKVKHERELVNRADSLINQLEQVVKTENVPQEQKDAFNKQIEELTNARDAQDYTKLEAEVKKVEDLLANAAKFAQQTQQQDPNNQKDDVTEATVTDDSTKK\*

>UUR10\_RS02395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SUF system NifU family Fe-S cluster assembly protein

MASYNINDNLTLRSIIMEHYERPKNKVCFVQNETDYLSCHNTTEGCSDDITVYVKLVNQKIVDVVFLGTGCAISTSSTDIICELVKNQDLQQALELINNYLNMIQGLEYNQDIMQELIAFHNVKNQMNRIRCARIGINALKTCLEQYKQ\*

>UUR10\_RS03150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 single-stranded DNA-binding protein

MNKVILIGNLVRDPEARQIPSGRLVTNFTVAVNDNIPNANANFIRCVA\*NNQANFLTTYLKKGDAIAIEGRIVSRSYVDNNGKTNYVTEVYADQVQSLSRRNQNANDHNNDKVNVDTMMGAYASINTDAAFSSNQPQTNFQSTTSNSNKNDDEEDEITS\*INLDDDLE\*

>UUR10\_RS03305 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L13

MQKSSMLKKEAAIARRQ\*YLVDATDLVLGRLSVKVADILRGKNKVDYTPNVDAGDYVIIVNSDKVVLTGQKALREN\*YNHSHYIGGLRTRSGEEMISKYSDELIRRSVKGMLPKNKLSKQILNKLFIYKNDKHSHEAQQPTILELKLK\*

>UUR10\_RS02085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome biogenesis GTPase Der

MRTIAIVGKPNVGKSSLFNRILMRRKSIVDDQPGVTRDRIYDVGN\*LTRDFMLIDTGGIISSEDTYQDNINEQVLFAINEANTIIFLVSAKDGINNDDKKIAKMLKEKAKDKKVILVVNKVESEKYYFNEGELYSFGFGKFFKISAEHGIGMGDLLDELVKDMPIQNALDQQERFKFCIIGRPNVGKSSLTNTILGEQRMIVNAEAGSTRDSIDNDFSYHNKKYTIIDTAGVRRKGKIVEAVEKYAVLRTQKAIERSQLILLVLDGSEPFKEQDEVVGGLAYDANIPTIIVVNK\*DNIVNKNSHTMEMVKKQIRSQFKYLS\*APIVFISALDNKRIHTIFETIELVREQAMRKVATSLLNDVVIKANAFQEPPPFKGGRISISYVVQVQSQIPTFVLKCNNPKFLHFSYARYIENEIRKAFGFDSVPITLY\*QDKNKKLRGE\*

>UUR10\_RS02545 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase IV subunit A

MSVNQQKIINTPLDNIVGESYAKYAKYIIQDRALPDIRDGLKPVQRRILYAMSELGIFHDKPYKKSARTVGEVIGKYHPHGDSSIYEAMVRMSQD\*KNNLCLLDMHGNKGSIDGDNAAAMRYTETRLSKIASVMLTNLKKDVVKFSPNFDDSEKEPSILPSLFPNLLINGATGIASGYATSIPPHNPNEVFDALIYRIDHPDCSIEKLIKICPAPDFPTGGEIHDLNGCANAHKTGEGKFVIRASIEFKTSEAKINQIIINSIPYETNKALIIKEIEDIIYNKEVAGLIEVRDESDAKGVSIIIDTKKDVNLENVKNYLYKKTSLEISYNTKFIAIVHRTPTLVSLSTYLDAQINHSLDVINKVDLYDLNKVLLRIEIVEGLIKCVDLIDEIIKIIRASDSRQDAKNALIQTFAFTNNQAEAIIMMRLHNLTRTDIFDLRNE\*ESLQQQAKTLKERIKSLQVRKNYLKQKMIEFKKEFGYQRKTKLFDEFIKAEVNEDQMIEKQSLNLVISRDGYIKTVSKKSFESSKYDELGLKTNDLLFYHNVINSHDRILIITSKAKLINLIAHKISCMR\*KDVGEHLNNYAKFDANEKVVAVYVCNEQFKVDEHQLVLGSKLNLIKRIELNELDLNKNSKQISIMKLNENDGLISANLIKKDHNQFVVAISKLGLVLMFLVHEINCLNRLAKGIKIMKLKPNDEISSILIVPNNGYSIQLFLDQGNKCFSISELKLSKRAMTPSPLYLPTKKAQSVLAAFLVGNENVFYLLDEQQKINPYYLPNLKPIKLDSKINKYENDLIITDVVKDSFLSDSVISDFKKISMYANEFDSELLKTNENQEQDDLQLELINEKEEND\*

>UUR10\_RS03005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S12

MPTIAQLIRNKRAPKVKKTKSPALLFTYNSLHKKTTKNPSPLKSGVCTRVGTMTPKKPNSALRKYAKVRLSNGFEVLAYIPGEGHNLQEHSVVVIRGGRVKDLPGVRYHIVRGAGDASGVEKRRQQRSLYGAKRPKKEASK\*

>UUR10\_RS01280 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 YihA family ribosome biogenesis GTP-binding protein

MAKFIKSAQYFDQYPVDKQFEICVIGRSNVGKSSLINALANEKIARTSNTPGRTQLVNFFDFNSFRLVDLPGYGFARVSKDKQLDLATIIDQYLGYRQNLCAVFQICDINVLTNDDVEMSRYFENQNYAHFVVLNKVDKVNKSHFDNNKQKIAKFLNISVDRLLCVSAQKNTNVATLFALMKKVVIETRQKQLLLKKEEKKSSEEEIK\*

>UUR10\_RS01830 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 CDP-diacylglycerol--glycerol-3-phosphate 3-phosphatidyltransferase

MAKLNFKKNILTSPFFRNIPNIITIFRIFLALICIILLLVDFYTKNLNIVYEVLDANISALRLSATTIFIIAAFSDFLDGYIARKYNLVSNLGKILDPISDKILVNGVLICLTLDHTALAYLTIINILRDIFIDGLRMFASSKKIIIPANIFGKIKSILLFISICFILFLLSLTSS\*KNVYLFNIPLFFATSLSIVSAIIYYIDFYKGVKKRGSITKS\*

>UUR10\_RS01190 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L15

MQLHNLEYKKGSRNHKEKRVGRGHGSGLGKTSGRGQDGQKARKSGMVRLAFEGGQTPLYRRVPKVGFNNDRFANKYNVVTLISLVKYETKELTAEFMYVNKIAKNEDLPIKVIGNAVLPSGTVVSAHKFSKGALESISNSKAKAQILE\*

>UUR10\_RS00405 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA lysidine(34) synthetase TilS

LTKL\*TNLINKITNKKYLAAVSGGPDSMAMLNMYKRNISVVCHVNYHKRESADRDQEIVVDFCKKNNLPIEILDVDEKVYEKYAHIDNFQAKARLIRYDFFKEIGKKYNIQHLYIAHNFDDFLETAYMQRARQSKALFYGIKESNVVNGMIVKRPVLFIRKQTLQRYCDENKIKYGIDETNELDIYERNRVRKTISN\*SLNEVYDFKKAVLKYNKEHSSFANFVELSYIEFKKNKYRYDYFVRQDDGVQYYLIYYFLIDQKISNPNENKIISLIKFFGKQINKEKAYRVQENLYMHVNEDDLISLISYDKNDVIDDPNIIEKQAGN\*

>UUR10\_RS02995 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor G

MSKELKLFRNFGIMAHIDAGKTTTSERILYHTGKNHKIGETHDGAATMD\*MAQEKERGITITSAATYAK\*KGHSLNLIDTPGHVDFTVEVERSLRVLDGAVAVLDGQNGVEPQTETV\*RQATKYNVPRIVFVNKMDKTGADFYYSIETMKNRLGVKATAIQIPIGAEADFVGSIDLIEMKAYIYDGQADEEYKIEDIPADYVTKAQVMRSQMIDDVAIFDDEVMEKYLSGEELSHEDIKKCIRKGVISTELYPVLCGTAFKNKGVKKLLDAVVDFLPSPIDVPPIKGVDDHGNPIEYHNDPSEPFAALAFKVATDPFVGRLTYIRVYSGKLDKGTYVYNATKDKKERISRLVKMHSNNRDEIDSISAGDICAVIGLKDTTTGDTICDEKKPVILEQMVFAEPVISLSVEPKTKADQEKMSLALSKLAEEDPTFRTYTNEETGQTIIAGMGELHLDVLVDRMRREFNVQVNVGAPQVSYRETFTEIADAEGKYIKQSGGRGQYGHV\*IKFEPNHDKGFEFVDNIVGGKVPKEYIKEVENGLIEALTSGPIAGYQTIDVKATIFDGSYHDVDSSGMAYKIAASLAFKEAAKVCKPVLLEPIMSVDVTTPDDYFGTVMGDISKRRGVIEGQEQRGNAQAIKAKVPLSEMFGYATDLRSNTQGRGQYIMQFSHYAQAPKSVTEEVMAARAKK\*

>UUR10\_RS01775 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 riboflavin biosynthesis protein RibF

MIIEITSTNIQQIRDQYFINELVIGFFDGIHLGHMNLLSDPNNQTILTFKNIPRKIKKLYDFNERIQQLEDLGFKRIFIYDIDQNNLSGEEFIDQILKPLTPKKIIVGANFTYGNNFCNASSLKQYFNVEIKIITNDVSTTKIKELIINKQVEIANKLLIKPYYRVGNVVRGDQIARNIGFNTANILCDNNLIDIAEGVYKAQVIFNNKKYDSVVYLGIPKTINTRSFSMIEAHILDFNQNIYDERIKIVFLKYLAPNLKFNNIDELITAIKNYIKLVLDKTN\*

>UUR10\_RS03335 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusG

MAYKIKDLDSKLLSDLKIDLNHTHQ\*YIVTVVSGNEQKVIENIKDKLNGYGYGDKLSDLKIIKEKIKEVKIYEPSEAPRSMKNRANTK\*ETIVVDGVTKYRCTKIKEGNKFNGYIFLKAEMTDQI\*FLIRNTQMVTGLVGSSGKNVKPIPVPEDKILKLIADNDAKRALVSLDEQTNSQQNVVVVESHETEDLPNFEVDQQVKIVADTFFGEIARIAKIDQNKKVATVEFEFFGRINTLDLNFNDIQPYDEEAELEN\*

>UUR10\_RS00650 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecA

MNLISKISPQNRILNHARLIAEEVLKKEDEYTHFSDQELINKSDDIIEYLANNNPLDDRLVESLCIIREVIYRVHNKRAFKVQLIGAIIVYFGDFAEMMTGEGKTLTLVLVAYLNALYKKGVHMVTVNEYLVKVGAEFATPALNFLNMSVGQITANMNEYEKRNNYDCDITYTTNSELGFDYLRDNMVTNYNSKVQRGL\*FAIVDEGDSVLIDEARTPLIISGEPQEEIGNYVKADRFVKTLYPQDFTLDPESQSVALTESGVEKAQKFFNTKNYYNFENSDIIHKVTNALRANFTFFNGREYIVKKDDEGEDVIALVDQSTGRIMEGRSYSAGLQQAIQAKEQIKIEPENLTVATITYQSLFRLYKKLAAVSGTAITEVEEFLNIYNMVVVTIPTNKPIRRIDHPDYVFDNKRTK\*KYVIADVIRRHENGQPILIGTASVEDSEILHQLLERVNIPHEVLNAKNHAREAEIVARAGEYKAVTIATNMAGRGTDIKLSPESLEAGGLCVIGTERSDSRRIDNQLRGRAGRQGDIGESRFFISMEDTLFSRFATDNLAKADDKLSEDVISTKFFTRLLNNTQKKVESLNYDTRKNLIDYDHVLSNQRELIYKQRDKILVSSDNKDILYRMLDSVIDDIIYQSHNEPNEDIIDVKKLIDLATQNIFYDNYLNHDEYYGLDLDEIKTKLKNDCISFFEQKEQLMTPGIFNQILSEIMISNIDEE\*TKHLDVTSKIREGVNLRAYEQKAPLNIYVEDSDKLFEKLKHDVA\*KTVCSIGKINYVHQEYDKVNNEFIINDNEIIDNDNVIDFENTDHSLISEQEIEDSLVNIDELNDQNTKNENND\*

>UUR10\_RS00990 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L27

MNKLY\*LTDLQLFASKKGVDSSKNGRDSNPKYLGAKLGDGQSTKAGQIIYRQRGNKIYPGLNVGQGKDHTLFAKTAGVVKYTKFMGDKTKVSVLPKEDNK\*

>UUR10\_RS02225 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 isoleucine--tRNA ligase

MKDYKSTLNMPSTAFEMRANLNIKEPKIQQF\*IEHGIYEKLLAKNKDKKPFVLHDGPPYANGNIHIGHALNKILKDFVVSYHNMNNYYSPYIPG\*DTHGLPIEVALSKKVKLSNLSVNERREQCKKYALEQVDNQIQQFLRLGMVSDFKQRYLTLDHSYEIDQLKLFANMLKKGFIYQDFKPVF\*S\*SSQTALAESEIEYGDRQSPAIYVKMQVVDSSELFNDKPTSFVI\*TTTP\*TLPANLAIAIHPELTYSLIEYKNENYVIAKSLVESFTKKVGFEDYKLIKDFKASALEKIKYISPITKKHAFIIMDEYVSANDGTGLVHNAPAFGLEDYYACKKYGIETEVIIDQFGKYNALVNDSELENMFYEDANQVILDRLICNQLLIHHELITHSVAHD\*RTKKPVMYRATKQ\*FVSIEKILPNILQTLKNDVKSTSFRGIERMHEMIVNRKE\*CISRQRV\*GVPIPMIFDENHEAIMDPDLVENIINVLNEKGVNA\*FDLDVNAFLTPKYLSMKNKTFYKEKDIMDV\*FDSGSSYNVLQHYNLPYPADVYLEGYDQYRG\*FNSSLITGTILNNKAPYKYLVAHGMVLDGEGYKMSKSKGNVVDPLDVCKVYGADVLRL\*IANSDYQNDTRISEEILKQNAEIYRRIRNTLFKYSLSILNDFEPSVDFSFDVRQEDQFVLNEFNELHLKVIKAYESFDYQTIVKLFNKFILDLSSWYFENIKDDMYCLAVDDPIRKQIQSTVY\*ILKNSLIDLTPIIPHTTEEAYSFLNDANKKESIRLEDFYDQSQFQFKKGIAHVKAFFSIKDEIFNELENARKNNVLKKNNEALVTIAKNLILDDYLLNNPKLLAKWFGVAKIEFTNTTSVVNANFKKCLRC\*NHFADDEMYDDELSMNCYKVINKIK\*

>UUR10\_RS03245 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S16

ILVKIRLTRVGTHKKPFFRIVVMDAKAKANGAYIENLGHYDPVLGKVVLKKEAILAQLQNGAQPSETVKNILSQEGI\*KEFIALKDANKKRKAALAKAK\*

>UUR10\_RS00390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 FAD-dependent oxidoreductase

MNQQIYDLVIIGAGPAGLAAAVYAKRSGLNVIIVEKQFPGGKVALTANVENYLGINSISGPELAYKMYEQVLNLDILVIYELADEITLKEKYKEVKLATQTLIAKTVIIATGTENRRLNIPGELTFENKGISYCAICDGPLYKNKVVSVIGSGNSAVEEAIYLATIAKEVHLIANKPEFKAERQMVEIVKNTSNIKIHYNKQTFEFFGEEFLQGLRFKDLVTNEITTLNVEANFTFIGLLPSRINASNLNIFNETNGFITTNKNMETNVHGIFAAGDIVDKSVRQIATAINDGVIAALYAKEYITRNN\*\*

>UUR10\_RS03380 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 thioredoxin

MLIKLENNQNLNQILKDNHSKPVLIDFYAD\*CPPCRMLSPVLDSIEKKYGDEFTIIKVNVDHFPELSAQYQVKSIPSLFYVKNEEIKTNSLGFIDENSLVNKLRSI\*

>UUR10\_RS01210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-1

MADTEKLKMLGKIVEILQGGNFRVQLENGITIMSHVSGKMRVNKINILPGDTVDVELSPYDLTRGRITYRHRDS\*

>UUR10\_RS03430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glutamate--tRNA ligase

MKIRTRYAPSPTGYLHIGGARTALFNYLLAKAYDGDFIIRIEDTDVERNVEGGIDSQFNFLE\*MGIVADESIRNPKTFGPYIQSQKLKHYEALALDLVAQKKAYFCFCSKERLDADRELAEKLHETPKYKRHCLNLNEQTIQANLLANKEYTIRLKIDENNEYS\*DDLIRGKISIPGSALTDPVILKSNKIAMYNFAVVIDDYEMQISHVIRGEEHISNTPYQLAIAQALNYDLSKIKYGHLSIIVDETGKKLSKRNLALKQFVSDYEKDGY\*PHAITNFVALLG\*SPKNNQEIMSLVEMVENFDVNNLSKSPAFFDINKMN\*FSTQYFNNISQDEFIDFVKTHPLTKELVLKDTTFIDKALLFKSHIVNLKQLINLVDEQFNSNKQLLEEDVNHIKNNQLTNVVQVFYEQLIVSEKFDEQSIKEVIKQVQKTTNNKGANLYMPIRIATTFSSHGPELAKTIYYLGRENVLKNLQSILKVLG\*

>UUR10\_RS03445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein insertase YidC

MSSVDKQNLMNRMRISVSHFAGASNANSTKKERRKKILNILLKVFKVIVYTFFLGIGLYGCFQNMANH\*TINSTVVGNGFELGFHVDPILGANDIRFDLIYSGTGP\*YPMSDFSFDYGPFYALFVWPIAQILLHFMYATRD\*PAGLNAILGLIIILLIIRVITMLISARATIQTERISEIQGKIAEINAKYKDAKDMQSRQKKQMETKELYQKHNVKPLAPFESMIITLPIFLIIYRVVTILRPLKFISIFYI\*DLSATPISEIFSNFTTSG\*PYIFFLLIIIPVQILSQKIPQLLAKKRNRSATTVGAKNKQQLKRVRMTQNIIAIVLAVVVAISASGIGLY\*FFNAIFTILQSYIIHVIIMKRRSNSATRIESKLAKLGIS\*

>UUR10\_RS02740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycine--tRNA ligase

MKNKFKTQEELVNHLKTVGFVFANSEIYNGLANA\*DYGPLGVLLKNNLKNL\*\*KEFVTKQKDVVGLDSAIILNPLV\*KASGHLDNFSDPLIDCKNCKARYRADKLIESFDENIHIAENSSNEEFAKVLNDYEISCPTCKQFN\*TEIRHFNLMFKTYQGVIEDAKNVVYLRPETAQGIFVNFKNVQRSMRLHLPFGIAQIGKSFRNEITPGNFIFRTREFEQMEIEFFLKEESAYDIFDKYLNQIEN\*LVSACGLSLNNLRKHEHPKEELSHYSKKTIDFEYNFLHGFSELYGIAYRTNYDLSVHMNLSKKDLTYFDEQTKEKYVPHVIEPSVGVERLLYAILTEATFIEKLENDDERILMDLKYDLAPYKIAVMPLVNKLKDKAEEIYGKILDLNISATFDNSGSIGKRYRRQDAIGTIYCLTIDFDSLDDQQDPSFTIRERNSMAQKRIKLSELPLYLNQKAHEDFQRQCQK\*

>UUR10\_RS02850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 acyl carrier protein

MVVNVKDIIIKVAKENKINLNMNNLDVELKSLGIDSLSAMSLIMKIEDKIGVQLVDEKLLKIKNLGDLIMAFEDALK\*

>UUR10\_RS00325 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ABC transporter ATP-binding protein

MNQQSQTIKPVSKLHLIYYYFKDFKKSFIGLSIAIVL\*LAATIAATFLLQETVDKYAVANGVVDTVVKMCGGLIGIYFLSFIFLLIMNEFAIRISFKIESHLSMMVINRIRYLPMKYFDVNKSGEIFTKTLSDPTSVQDGIVNFYIELNKTFFGALGFGIALLVTSPYIALIGIAIYTLVMLFNILIFKKSRQLMRKKRQDFGEMNGYIEEMIHGQNVVANFDEQAYFVKKLDNMIKNLYKN\*VKAQYSSQIIFP\*SIFSMRLMNAVLIVSYLLISIKGIHLPGIVSNIDPVTNMISFGGLVSISLFGNFFCDNFSQLSNAIPIFIIARTSLAKIDEIVKTPNEID\*DEKLVIDDSQGIEVRFENVNFNYSKNKPTLKNINFVAKKNQKIAIIGPTGAGKTTITNLINKFYDINSGHIYFNDVDITNKSRASVREHISIVLQDPFLFSESIYENIKKGKMNATKEEIVEAAKKAQAHELILSFEKDYGTVISEKQSLSQGQKQLITIARAIVSDAKIIILDEATSSVDTQTEHKLQLAINNLLKGRTSFVVAHRLSTIINSDLILVVKDGEIIAQGNHDYLIKNSSFYQDLYYTNFAE\*

>UUR10\_RS00715 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit alpha

MTDNKNHSLISDIKSQIKKFSEKALTLEVGNVISLGDGIVLVDGLDNVMLNEIVRFENGVEGMALNLEEDAVGVVLLGDYSNIKEGDRVYRTKKIVEVPVGDIMLGRVVDALGKAVDNKGNIVANKFSVIEKIAPGVMDRKSVHQPLETGILSIDAMFPIGKGQRELIIGDRQTGKTTIAIDAIINQKGRNVNCVYVAIGQKNSTIANVVRDLEAHGAMEYTTVVTANASELPALQYIAPFTGVTIAEE\*MHQGKDVLIVYDDLSKHAIAYRTLSLLLRRPPGREAYPGDVFYLHSRLLERACKLKDELGAGSITALPIIETQAGDISAYIPTNVISITDGQIFMMTSLFNAGQRPAIDAGQSVSRVGSAAQIKSVKQTGASLKLELANYRELEAFSQFGSDLDDETKRILKLGKAVMAVIKQEPNKPYNQTDEAIILFTVKEKLIPQVPVERIQDFKEYLLNYFKGTKLRADLEEKKAFDKENTPAFKCAIQKAINNFLNNSQDFKPCDELEQTAYDKFFNENEPIVVVNENEFFDEQINSLPTFESIHPVQIEEKVQELAEPREVFEVNKIEKEHLFEEVEPEKIICEHHQFEITEDQEEVDGQEVLEDENHEYAIYEVVEQNDTIENCKEANDEAEIQVPVAEVVQDEEILNERENRN\*VFSDSAVSEVEKQTIMISISPNESEQLFDNGRSVVFFKVAPKYPVEKVLVYVTSPIQKVIGEFDLLKIDVNSVNSS\*NKYRSSSVISSRKEYLEYFSSHKEAHALLASKVYKYRRPKDLASFNMKKGPSGFTYLK\*

>UUR10\_RS01215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L36

MKVRASVKAICKDCKIVKRSGVVRVICANPKHKQRQG\*

>UUR10\_RS02080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(P)-binding domain-containing protein

MSKILIIGSGAFGSALTQVLVSNHHAVDVYGINQNELNDLQQNQKNTTYFQDQKLSQPINNTYLDIHLALKNHYDFIVIVIPSFAIKNFVDSIKTLDLSQAIVVNAAKGLNLETKSS\*CDYIQQNLKIKALIGLVGPSFAIDVFLKKPTVVNLVGTDLDALIKTKQAFEND\*FKCVLSKQFEVANYISCFKNALAIGCGIIYGLEKSHNSLVAFLTKGINEMQLILETIYQKKVNPLEYFFIGDTILTCTDQKSRNFSFGLLVAQQGVQTALENKQKTVEGLNNIKVIYEIIKTKQIDAPLFESLYEVINENLTPKSLFNKSFC\*

>UUR10\_RS00005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MSNNYQNLYDSAIKKIPYDLISDQAYEILEKAKVHKVYDGVLYIIVASAFEKTIINGNFINIISKYLSEEFKKENIVNFQFIVENEKVLINSNFLVKETVIKNRFNFSDEIMRYNFNNLVISDFNRKAVKAIESLLSTNYENSSMCNPLFLFGKVGIGKTHIVAAAGNQFANSNPNLKIYYYEGQDFFRKFCSASAKGTSHVEEFKKEIASANLLIFEDIQNIQSRDSAAELFFNIFNDIKLNGGKIILTSDRTPNELNGFHDRIISRLASGLQCKISQPDKNEAIKIINN\*FEFKKKYQITDEAKEYIAEGFHTDIRQMIGNLKQICF\*ADNDLNENLVITKDFIIECSVENDIPSNIIVKQQLKPEQVIEIIAKELNLKVDLIKSTTRKNSIVWARDIVCYVLKNKLNLTLTEIGKLLSGREHTTISHSVNKVEKILADKNSQEALQINLIIDKF\*

>UUR10\_RS02730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 GTPase Era

MVKKYGIVAIVGKPNVGKSTLINAIMRKKVSIISNKPQTTRNAIKEIYEDDDSAIIFTDTPGFHEPSNKLDLFLNHEIEVSYKEANVILFVSSMDKELSEDDFEIINLIKESNKENVILVISKAEVAKNQDKIDERVHQLNKYIQFKDVIQISALHVINIDKLINTIKQYLHKDVVTDYFRQKVEKEDKFIIAETIREQCLLNLNHEVPHGVGVEIDESKYNQEANH\*IIKASIIIEKNSHKPIVIGQNGAMIKKISMAARKQLHEIYDCHISLTIFVKVENN\*RENNNVVKSLGYKIKK\*

>UUR10\_RS02100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 16S rRNA (cytosine(1402)-N(4))-methyltransferase RsmH

MEFNQHTTVLLNETIELLHVKPDGIYVDCTFGRGGHSQLILKKLSKKGKLICIDQDQQAIDFANNLFKDNPNVIVIKTNFKNLKSVLYDHQIFHVDGFVFDLGLSSPQLDDPERGFSYHKDALLDMRMDQEQKLNAHYIVNHYSFAKLVNIFTKYGEIKYAKTIANGIVKERSTKAINTTLELVEIIKNYSPKKILFEKKHPARLFFQAIRIEVNDELNILKKAFNDAISMLNPLGVVAIISFHSLEDKIVKKVFNNYAKNKLPKEIPLNNYVNQYSLLNQKIMPSTQELNDNNRSRSSILRGLVKNY\*

>UUR10\_RS01015 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine/threonine-protein phosphatase

MNFGFISDIGSQRKHNDDCALVIQNEHQQTLLIVCDGLGGYKGGAAASHITLETIKDNFLATNFNEYDEQQIRK\*YIKVIKLAQIEIDRAVLLDKDVYNMGTTVVASIIINDFVYTLNIGDSRAYLLSNNQSSQISRDHNLLQVLHERKVGPEVYEKHEKNLFSLTQFVGRTSNVVLSYDLFVTKLHHNEIIVLTSDGFHNYFELNDLYDKLIVTNQQTNNQILQQLINQAIDNGSNDNLSLAFLIF\*

>UUR10\_RS02725 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 rRNA maturation RNase YbeY

MRFLITNEVKSVFNDEIYLQRFEQIANLISIKLNIDKERFFECHFVDEKTIQEINRDYRNKDYITDVISFAFDDGEIITPLLGEMYICYQKVVNQAKEFGHSFERELCFLFTHGLLHLLGYDHIEVEEEKIMFGLQDEILNELNITRNVNGNKNG\*

>UUR10\_RS01085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L35

MAKIRQKTKRAAAKRFSITKNGKLKRKHAYRSHLALGRSTKAKRHLRKDAIMSTSDTKRYTQCL\*

>UUR10\_RS03145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S18

MAKVINNRNRKPRKKVCILSAKGIEHVDYKDVELLQRFINNNNKIASRRVTGASARMQRRIANAIKRARFVGLLPYVKE\*

>UUR10\_RS00705 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit gamma

MSLDAIKRKISSVQTTAKITNAMKLVATAKLKRQRDRLAAIKEYCHDYYDVIGLLLSVVNDIEFLKIPNAKNRTLYITINSTMGLAGSYNYNVNKLVSKIINEDDITFTIGKKGHDFMRLSNRLHQVNTYLNLNDNDLTFDMSLQIAREALELYSNGEVNKICIIYTKFINAITFEVNNIDVLPFDKTVLTKDNLAETIELAKDNIIFQPNKVELVKKILPTYIATVLYGSLIESKISENASRRNAMDAATKNAKALAEDYKLIYNTLRQGKITREITEIVAGSDD\*

>UUR10\_RS00805 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tryptophan--tRNA ligase

MKRLISGIQPTNNLTLGNYLGAIKNFVDLQNDYEVFLFVADLHSLTPNIFDNTNFFATKRQIIATYLAAGIDPKKTCLFYQSDILAIPLLSHILLCSTSIGELTRMTQFKDKSAKATKMANNTEMIPSGLLTYPALMAADILAFNADVVPVGQDQKQHLELTRTLADRFNKRYGQTFKLPQVYIPKIGAKIMDLLDPSVKMSKSSKNPKGVIFLNDSREQIIKKIKGALTDNLNQVKYDVEQQPSVSNLITIYACLTNLTFAEIETKYNQQNYGVFKNDLANIVADFLENLQQKISY\*LNSPELDIMIDNSCERANDVANQNVQLVLKQMQLK\*

>UUR10\_RS01600 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosome-binding factor RbfA

MANEVRVARLESLIKDVINNALANEINDKIAKLARVTAVRLSNDLSVAKIFLDAHKRESMPKVLENVNKVSGLLRSKLAAE\*TSYKVPELRFVIDETIDYANHIDELFKKIKQQEN\*

>UUR10\_RS03155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S6

MAKYEIMLVVRGDLDQEQANKVANELKATLKNTEVKENNYEGVQQLAYEINKLKTAYRYVYNFETTDVSLINEFRRLAIINKNVLRHIIINLEKDYGYKATVNAKKVQRNEKRAEVYVRQKEEAERRAAERQAAYEAMKAEREAAGLPVKEFVKGANSKR\*

>UUR10\_RS01550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex dimerization subunit type 1 TsaB

MNSLYQLFIDVTSKKCVLAIYKNFKILANIIVETNNNLTDIIVEHIIALLKAVHLKYQDLDAIYLDIGPGSFTGVRVGAIVAKTICTTHNQIKLFINDSLNIIANNKNNVFVHLDAKGNKSYTISIINNIQSDYRIITNEQLQIELKNTSLTIIDANQVDYHNLIYNLKFDNFKLTNILDFDLNYVKKPLS\*

>UUR10\_RS00055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L7/L12

MSKLTIEQFIAAIKEMSMLELNDLVKAIETEFGVSAAAPVAVAAAPAAAEAPTEVTIKLVEAGANKVGVIKLIREITGLGLMEAKTAAETAGSVIKEDVKTEEANEIKKKFDELGAKVQLV\*

>UUR10\_RS00695 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase F1 subunit epsilon

MANLTKLKIVTPYAQNLEKDVYSVELKTSEGRIAVLPDHNPLMSIIENHVAYIRELPNAPRKPLLLLDGIVYVEEHQVRVFSDYFKFLDEIKIDEINSLLNKLKNDLANEEDDKKKLQLKSKIKLNESILIAYKDR\*

>UUR10\_RS01180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L18

MKRINFSRAKQRALRAKRLHVKIRNLQLAANKPVLVITKTNAHI\*AQLICYNKNITLASSSSVQLDLQNGNKDNARLVGADIAKKALAQGFKQVIFNKNGAKYHGRIKALADAAREAGLEF\*

>UUR10\_RS01220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S13

MARILGVDIPNDKRVVISLTYIFGIGKSTSQKILKLANIDENIRVNDLADEQIAEIRRVALNFVKANGEKLQLEGDLRRTVAMDIKRLMEIGSYRGIRHRRGLPVRGQRTKTNARTRKGPRKTVANKKIETR\*

>UUR10\_RS01000 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L21

MFAIFQTGGKQYKVQQGEKIYVEKLDLEVGSKISFDQVIMVEGSVGTPFVKNAVVNATVLKQGKQKKINIIKFKSKKHHLKRQGHRQPYTQLVIDSISVK\*

>UUR10\_RS01160 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L5

MAFLKDLYKNKVAKDLQKEFAYSSVMQIPKIEKVVINAGIGNAVADKKHLEAAISELTLITGQRPVETKAKKSIATFKLRAGQSIGAKVTLRGDRM\*AFIETLFNIALPRVRDFKGISNNSFDDQGNYTLGIKEQIIFPQVVYDDVKSVRGFDVTFVTTAKTAQEAKALLVGLGAPFQKVRGDK\*

>UUR10\_RS01710 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 (d)CMP kinase

MKKYINVAIDGPSGSGKSTAAKGLANKLGFLYINTGLMYRAYAYFLNENNLDINTNETACIEAIKNARFIFNGDDVKIDDQDVSDILRSNDVAMLASVVAANAKIRNLATNEQRKIASENNVVMDGRDIGSIVLVDADLKFYLNTSIQTRAKRRLAQNKDIEKLDYESIYNDIKERDYRDMTRDIAPLKKAIDAIEIFNDNMNLDQCVAHLYEIYLNKIKKS\*

>UUR10\_RS00815 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(+)/NADH kinase

MKDVKPVYFYDIYCFNPNKCTEDKGVLLLETKLKEYQKVTFLRSEQKPQIVFLLGGDGSFINFVNQQ\*KQN\*KIVGINYGQLGFYSSYDGINTINIDEIVDESMYANAFLIEVNINNENKFYCLNELSIFSNELASCDISINNTFYEKFRGSGLLFATPSGSTGKNKVAHGPIIFNNQPCFSMLEIFPVNHLKYSSLNAPVVFGKDYQISLTNIKFKRTLNLVVDGNNINFNNKIDFIEVKLIQASLQIHGLNNYKKYIERLRRSFIKEE\*

>UUR10\_RS01100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L3

MKSLLGTKVGMTQVFTETGKAVAATVIYVEPNKVLAVKTNEKDGYNAIQIGYETVKEKALNKPLLGQFKKANSDPKRHIKEFRDVVAEVGAELTVSEFEPGQLVNAQAYTKGHGFTGSIKRHNFSMGPMGHGAGYPHRYVGSIAKGRGGSQAQRVFKGTKLPGHYGHELVTTKNLLVLDVKANENLILIKGAIPGPKGSIVLLKSAKKVGHIVSDPQVVNYLANKASSSEANK\*

>UUR10\_RS03075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 energy-coupling factor transporter transmembrane protein EcfT

MSANAYVFRRSPIHRLNPAIKFISFILLIAMIFLPLGFFAQMIIGVFILIIFFVAKLPKKTL\*NVFKSVIMLFVILLLIN\*MTYKDPIAIYNITDQAKVILGDKD\*INGPINKNLSFSLIYNDISSTHVQNLVSNIWGGEIKNYISPEIIKKLIDKPDYNVAKFLSENNITVKKLASTFNALNQDVRLNNYYPIYGDAVLRSGKVEVPLSHLSYYMSTNL\*KIEGVKYQGLILSGVGDQLGKAETALFYTRSPFALSPVAIQLAIYISIKIFLMITLSSILTATTSSIELTNGLEDLLSPFKILRLPVAEASMMISIALRFIPSLLDESKRILNAQASRGVDFNNGGMLQKLKSLISLVVPLFSIAFKKAEDLANAMEARSYNPRYARTRYRAFPLNLTDYVLFGILCILVGFLISLAVIKFYFTPFGAFEASALFAK\*

>UUR10\_RS01185 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S5

MENNVKKETIVDSEKVEKQQPVTAPVVNKKENTQPKAKTFKRETTTSNFEERVVKIKRISKTTKGGRMMRFSALVVIGDKNGTVGFGMGKSIEVPDAIKKAIKNANNNLIKVKQTKKGSIYHDVNGRHGAAKVMLLPAPEGTGIIAGGPVRAVVELAGFTDIYTKSRGANAPMNVIRATINGLLQQLTPQEIARLRDKSLKEL\*

>UUR10\_RS01115 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L2

MAVKRIKNHSSGKRQTVVVDYKSILTTSKPEKSLLVTLPKKAGRNNQGKITIRHHGGGHKRKYRIIDFKRNKDNIYGTIKSIEYDPNRTSFISLVVYADGEKRYIIAPKGIKVGDKIISGNENIDILLGNSLPLEFIPEDTLVHNIELSPNAGGQITRSAGASAQILGFDETKKYILVKLNSGEVRKFRKECRATIGTVSNDEHILENLGKAGKSRHLGVRPTVRGSAMNPNDHPHGGGEGRSPVGMDAPRTP\*GKRHMGVKTRNNKKSSTSMIVRRRK\*

>UUR10\_RS02180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA 2-thiouridine(34) synthase MnmA

MEVNTKKRVVIGLSGGVDSSVSALLLKQQGYEVIGLFMAN\*DTVANFENNRESDKKHQGCESELDYQDAQAVAQKIGIPLYRVEFIKEY\*NNVFEYFLSEYQKNRTPNPDILCNQFIKFDSFLNYAKNELKADYIAMGHYAKVKHTNNLSYLLKATDVNKDQTYFLCNLKQTQLQNALFPIGDLTKQQVRTIAKEYGLVTANKKDSTGICFIGERNFKYFLENYIPNQPGEIVNIVNNQIVGHHMGTMYYTIGQRKGLNLGGMNERMFVCEKDINKKIIYVSPLSLEDQYLISNQALVENMNFIEPYNPQIPISVRFRHRQNLVVVNSFLCIENTNNVLINYEPAKAITPGQYAVFYQNDHCIGGGVIAQTNANHKKINF\*

>UUR10\_RS00025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 L-threonylcarbamoyladenylate synthase

MKIYRITNLNAIYDALVANKCVLIPTDTIIGLLAKNQDVIYEIKRRDRNKKIVRFVADYKLLGDLTVEQEQFLDLF\*PGSVTVIKNGVSYRMPNSPYILKLIQKLGPLYCSSANISGEEPVKNHNEAIFKFGANSKLIYVEAQQQIGVPSTIVDIDK\*EYVRRGANIEMVDMFIKELKYNNTKEKE\*

>UUR10\_RS01125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L22

MTNKVIQRNIHISHRKASLVIDLVRNKPVHEAIRILSNTPKKFAPIVLKLLNSAISNVQHNSKDMDPSKLYIYKIVANQGPTMKRTLPRAKGSADQLFKRTTHLEIVLSDDVNEREKELAAIKAKKSKKPLVVEPVAKVETKKVAKPSKVETKPVEKDENVDPELLKREQQVLKVVEKTASQKEEETTETIMISTSPKNAQVLFDDLEKNVIFYKTTPVNKVLRVLVYVTSPTKKVVGEFDLESVEIGAISSI\*RKYNKQSVISKKEYDAYYEGKDKAHALVSKKAYKYRNPKDLSEYNMTKGPSGFQYLK\*

>UUR10\_RS03095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L11

VAPKKKEVTRIAKLNLIGGQAKPGPALASVGINMAEFTKSFNDKTKDQNGKVIPVIITAYKDKSFDYVVKTTPVTYLLKDAAKIKSGAKDPKKQVVATISKEQALEIARYKLVDMTAYDEEAALRMIAGSAKQMGIAIEGVSAYKEKKGN\*

>UUR10\_RS00090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA uridine-5-carboxymethylaminomethyl(34) synthesis GTPase MnmE

MSTIVALATAPMNCAIHIIRISGPQAFEMINKISTTKIKKETFKIWYTTLKDNDQVLDEVLVNTFVGPKTFTGEDLVEINCHGGVIVANLIIKILIKYGCQPAQRGEFSRRALLNKKMDLSKIEAINNLVNAKNELSVKGVIGALLGRVSQSISDFKHELFMIIGQIEVNIDYPEYDDVEQVDAINLKQRLLVLNEKIKKIIDQSKKFLPINKGIKVLIIGKPNVGKSTLLNALCNEQKAIVTDIPGTTRDVIESSINIDNITLNILDTAGIHSTNDFVENLGINKAKELINKVDLVLYLVPANNQQDLELYDLIKDQKHLLVYTKKDLIDQYSDDQIYINAKDNDIQALIDKIKELFYVQEFDNANIDVLQSQRQIGILENVNYLIDNAITNLEKGDTVDLVVADLEFCNLRLNELLGIGSEYDFLDDLFKNFCVGK\*

>UUR10\_RS01135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L16

MLQPKRTKFRKPHKVSYEGKAKGNKQVDFGEFGLMALEGA\*IDARQIESARIAISKRLLKTGKM\*IRIFPHMSLTKKPLEVRMGSGKGSPEK\*VAVVKAGTVMFEIANVSEELMREALRAAGNKLPIKVKIVKKGEAN\*

>UUR10\_RS02210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 molecular chaperone DnaJ

MAKRDYYEVLGVSKSASPEEIKTAFRKLAKEHHPDRNKSADDTVFKEINEAYEVLSDPKKRAQYDQFGHDGPQGFAGAGGFSGFSDGFGGVDFDINDIFGSFFKNGASSRSSSSQYETYDIHLRLHLEFIEAIKGVSKNISYDRKITCNKCQGTGAKDPKDVKTCTKCHGRGTTIENVHSLFGTIQQEVECHECEGTGKVANSKCEQCYGKKVINERVNLTVEIPAGTQDNEKLVVSKKGNIINNQEFDLYLHISVKPSKYFAFDGLDIYSETYVDPIKAIVGGVIEVVTTSGIKTIEIPPNTPEGKKFRISGAGIVNKKPNIFSKKNGDFYTTIRYAKPLELTKEEIAYLKNISARTNQSVEYYKNKLLKEVNK\*

>UUR10\_RS03105 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Asp-tRNA(Asn)/Glu-tRNA(Gln) amidotransferase subunit GatB

MQNFEVIIGIEVHTALNTKTKMFSNTPTSHKSMANTLINEIDLALPGTLPSVNQEVVHKGLFLANALHMHTNHQFIAFDRKHYYYLDLPKGYQITQNYFPIGQNGYIQITDENNNPKKIRIKQIHLEEDTAKQTSVNNQVYLDYNRAG\*PLIEIVSEADLRSAQETVLFLEELRKILLFNDISDAKMEDGSLRVDVNISIRPRGAKSFGTKVEIKNINSISNVAKAINYEYNRQLNLILLNQSVEQQTRRFDDSTNTTVFMRSKNDAINYRYIRELNIAPIYLSDEYVSQLLSTKPYSINDLRQELLQKGLVSSAIEQLLGDGPLFKAFKYVNKIVNNPSSVYK\*LCLEFIGLINKNTQIIEDISMELLQKIGAMIVLFDQTLINGKQTKTILEKIYLTNKDPQTLIKELGFEQITDENEITNL\*NQILANNQEMLLQYEERPDRVEKFFMGEMMKLTKAQANPTISFNILKKILQK\*

>UUR10\_RS00555 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine--tRNA ligase

MFDINLIRKDIVVTKEKMLNKKVSSDLFDQIFGLDVLVRNLMQQEQNLNAKKNQLSKEIGILAKNKDPKLQQTLDLVNSIKSELQDISLTLSNKQDELNKLLLVIPNMPDDSVPIGNDENDNVEIKKVFEPRKFDFSPLAH\*DLAAKNKLIDFDKSTKITGSRFIIYTNFGARLYRALQQFCLDMNVKAGFNEI\*APVIVNQESLIGSGNLPKFVDDLFKLENSNYYLSPTAEVQLTNLHRNEILKASDLPLYYTALTPCFRSEAGSAGRDVRGVIRQHQFHKVELVKLCKPEDSFKELESMTRQAESILEALELPYRRIALCTGDLGFSSAKTYDLEVWLPSYNAYKEISSCSNCTNFQARRAKIRYKETVDAPTELVHTLNGSSLAIDRL\*AAVVENYQQEDGSITIPKALEKYIY\*

>UUR10\_RS01745 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RNA polymerase sigma factor

MSTKQNEPLFENLEDLKQKVKLSFTEEFSFSYALSEREAGIFESRNLKGADASNPEEILLNVVLDVSKRKRSRNEIKFNKLQNYFIHMNLRDEHFSEIVDVLENIGIRVPDYELVMQSKSKSTAKKKDEYGIDDTLEISTSKIGFSSTTTEKVDDGIKAYLGVLGESKMLRSDEETEYAKMVISNDPALIKIGKNQLYTSNMRLVTSIAKKYLNRGLDLEDLIQEGSSGLLKAIDKFDHEKGHKFSTYAT\*\*IRQSITRAIADQARQIRIPVHMVETINKLTKAERSLIQELGRDPTAEEIAQAMNKASQAKNQKEQLITAQKVVEIKKLNVDPVSLDKQIGHDEESQFSDFISDDEIISPEKYTEKKALNDQINEMFEKVLNDNEQRVIKMRYGLLPFERPYTLEEVGEHLGVTRERARQIESKAIRKLKHPSKTAKLRSFIGESEN\*

>UUR10\_RS00400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HPr kinase/phosphorylase

MEIRGKLFVSQVVRKFNLNVVANSDYIDREISTTGITRVGFELAGEILFKEI\*NIVYFGSKESNYFSKFSETIISKKLGKILDLNPPLIIFGKNFKHAGILLKLAERYKIPIVEVKYSFYELNFTINTYISQKLSHQSLVHGTLLSIYGIGVILMGESGVGKSELAIELVKKGHIFVGDDAILVNRIGGNLYGRAEDSTKDFIEIRGLGIMNFSRSFGIERMIESTKIEIVIELIKAAKHEKIKFERFGREIQHKEFLETKIAYYYIPVIEGRSISDIIETAITDYKLKTSGYNSAEEFILQIDKKGN\*

>UUR10\_RS00980 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L28

MARRDQLTGKGPLSGNTRSHAMNHSKRR\*NVNLQKATIKTENGSQRVLVSAKTLKTLKKHNLLA\*

>UUR10\_RS00670 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 cysteine--tRNA ligase

MKLYDSYSNQLVEINDELISIYNCGPTVYNHIHIGNARPLITMDVLYRFLKKHNIKTKYVLNITDIDDKIINYALANNLKELEVSEYYFNEYLKIKKALNTLEMINPKVSTHMDKIIDYIQKLIDKQAGYFIGDDVYFDTKKALNYGQLSKRDLENDIVGMRIESAANKHNPNDFIL\*KKTNKGIM\*NTP\*GIGRPGWHSECSCLINTYIGEQVSIHGGGIDLKFPHHENENAQNQVLYNKNLAKV\*MHFGLVNINNEKMSKSLNNFILVKDLLAEYDYQVVRWFFYQADYKQPIKFSHEIMKQNEKEILKIKNAIYNAKNYLYFNHQLKSLTQIDHFGFFDERINDDLDFVGIVDLIHISVKKINILIKKNKDMNELKLNLTQLLYMLDILGINFVDLHNDENLALLNT\*KNYVDKKDYVKADELRKQLINIGIL\*

>UUR10\_RS00015 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 peptide chain release factor 1

MEYNKKLYEAIERVAVKNKTLKQELETITSDFKKIKEINIQLKKTTKIAEAFAKYKQKIDAGIVAEELLNTEKDLELVELAQMDLDDAKASIPVIENELKIMLLPTDPNDDKNVIVEMRPAAGGDESSIFVGNLFDTYRAYTESNN\*KMKIIEMTPNAVGFSFISFMISGEEVYSRMKFESGVHRVQRVPATESKGRVHTSTITVAVLPEQDEVDVVINPSDLRIDTYRASGAGGQHVNRTESAVRITHIPTGVVAACQEGKSQIENRETAMKMLRAKL\*EAAQEQQNAEFANLRKNQVGTGDRSEKIRTYNYPQNRVTDHRISLTLNKLDQIMMGELDEIIDALITDEQTNLMANLGI\*

>UUR10\_RS02265 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 bifunctional oligoribonuclease/PAP phosphatase NrnA

MQKDLLNKLIEQTYGFSKISIFVHTNPDCDALGSAFALARILKLNTFGTRVKIVGINTLNPNDFKNFFTFDKNEVEDEFIEGSLAFIVDTANQERVLSQKHTLAKKTILVDHHVKTVSYTDLTYINDQSIATCEMLAYSLMHTNLNFDVKTLNYLLLGLTTDSNRLMYDKVSDITYEIMA\*FFKNNVKHYQIYQQLYERNLDDILFDNELIKTIKTHKQIAYLNIDKS\*NQKYNFTR\*GDKVYLLSNIKNYPI\*FVVYFDETTNTYKVSLRSNKYKVRLVANQFNGGGHDLAAGCSLANIDQLNDLLKALELLIKNQEVVD\*

>UUR10\_RS02390 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 proline--tRNA ligase

MAKKLEKIITRNENFAD\*YTSIVNNAKLIQYTDIKGMMVFQPNA\*AI\*EAIKNQIDLEFKKHGVRNLAMPTLIPLSEFQKEKDHIEGFAPELFMVNQIGDKKLDNPYAIRPTSEILFCNYFKNIVNSYNDLPIKNNQ\*CSVMRAEKTTRPFLRNAEFH\*QELHAIFASEHEADEFAKTILDVYTDFVQNYLCIPVIKGLKTP\*ERFAGAQKTYTIEAMMQDGQALQSATSHYLGQFFAKAYDIKFQGQDNQMHYVHQMSAGLSTRIIGALIMVHADDQGLILPPDIAFNQIAILSIFANKNPQLLTISEQIRNELSDYRLFEDHSDKGVGYKLAQQEIEGTPICILVGVKELANQQVVLVRRDTHEKINVNLIDLKSTIKKLLLDIKTNIYQKAKKQLDESIVFVNSIEELKQVIAQNKMAKAFFDGSKEDDEQIKLLTNASTRCIFDETQSGQCFYTNKKTNKLTLFARAY\*

>UUR10\_RS01350 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 arginine--tRNA ligase

MMITQKISEQLSKALEKMGIFETKVLVDKTKNIKFGDFYTNVAMTLSKRVNQSPLVVAKEIINNLDQDLFFKVNLQPPGFLNFTLKAKDHEDLLTQIYDQKDLFGQFAKKNITYNVEYVSANPTGYLHIAHAANAIYGDILANLLKIYGYDVKTEY\*INDAGNQIDKLAMSVLVRYLQLQNINIELPTDAYHGQEIYLVAQALYEIYKDQFINVRLNEKEEIDDVIVNEQIKKFAVSYLLDEIKKDLASINTYIDTYTSEN\*IRSSGRILEVLSKIKQHTYTLDGAL\*LRTTAFGDDKDRVLIKSDGSYTYFTPDIAYHDYKFSKDNTTKLIDV\*GTDHLGYIARLKAAMSALGYDPNNLEIVCAQVMKLVKNNEEFKLSKRSGQSLTIKDLVEIIGKDALR\*FLGSSSMNSHVVIDVDIALSKNNNNPLYYVQYAHARANQVLNKQVYEFDFKTDLLIETRERELLNQLHFYKQTIANAANNREPHRISNYLYDLAQIFHNYYANIKINDENNKALSAQRYTLV\*CVKQVLANGLAIMKITPYDQMY\*

>UUR10\_RS01540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S20

MANIVSNEKTYRHTQKVRKENHAKMSKLRTIVKKTRSSNEQAQLNEAYKVIDTTASKGVIHKNKANRLKSRTAKAFKANLQVVA\*

>UUR10\_RS03235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L19

MALFKINKGEIMNFVNSTQLKTDIPSFDSGDTIIVHNRIVEGKKTRIQKFEGVVLRRRGSGSSETVIVRKESNGVGVEQSFNIHSPLVEKIEVIKYGKVRRAYISYMRNRSGKSARIKELNKQ\*

>UUR10\_RS01860 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Holliday junction resolvase RuvX

MRKLALDLGTKSCGFAISDLLGIIASGLDNFIYEENDFIAVLAKIDEIMINYHHEIDTIVLGYPTNVYDGSKNKRTYLIESFYTLLKQHFLNHEKIKIVYEDERFSTKIATQRLKNSCVKAAKIKKVKDKMSAVVILESYLSKNHFN\*

>UUR10\_RS02555 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate-nucleotide adenylyltransferase

MKIILFCGAFDMVHNAHIAMAKYAIDLIKADKLIFLPSNFKFFKPINKDDNLEYEKTKLTHGHHRLAMLKIATKNLVNTEVSDYELNQVNKSYTINTIDHFKKLYGAEHEYYFIIGSDNLERFKQ\*KD\*ERILKEVKIICFKRSGVCLKKTCFQNQCNCENFNFFEHQIILVNDFNYNISSTEIKKQHNLASGIDPAVLDYINEHGLYAL\*LLEKHLISYDNFNNLEKKIARINHCRRVAQMCVDLMNVYDKKLIDQAYCAGIYHDILKCLDEQESIAYFNEHKSELNIGDDFIS\*RILHSYLGAHLLQTQYGFKNQLILNAIRRHTRPFDFIKDYSELTTLDKILYCADKLEPNRREEIDQINIDYYRKLVFEDLDKAFIEVYKYQQRQRK\*

>UUR10\_RS00395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 prolipoprotein diacylglyceryl transferase

MQLEIINPESTLINDVVAHRIAFSIGSNFNIY\*YGIIFVCGFLLAILTYSLRLKFHYKVPYDPGFYYIFLAIPMTIIGARL\*SLAIGDAKDFFDFRNGGLAIQGGVIAGVLSAAIYFPLILRMPKYHVRDLDADGNVIIRQPSM\*IYADAIIPTILIGQALGRWGNFINGEIFGAESTVNDLQ\*LKKAMPAVFEGMKHYFIEGDKTLFTIYQPLFLYESFFNVIVFVFIYFGLSYIKQLKIGFVSMSYFFFYGVIRFSTESARAPQFSFAGTYVINSLLLIFGVLGALYVQFIAPILRKRFLLDAIIELFYKKKQQAHKFGQLRNPEEFLYYCHK\*

>UUR10\_RS00840 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 2,3-bisphosphoglycerate-independent phosphoglycerate mutase

MSLNKKLALIIIDGLGIGKKDDTNAVYLANPKTLNYLIKNYPTLEISAAQQPIGLLENQAGNSEIGHLTIGAGRIILNDNANINSYTKRLDYESLVLNDINNEIVHVVGMYSNGLVHSNYEHIH\*IIKELVKNNNQVVLHLISDGRDDYPYGFAQFIEQINALKTQYNVIIKSLSGRYFAMDRDQR\*ERTQKAFNTMFIKQDKICEQSLLEVAQSIANHYESDEFVEPIVFNNDEKYNLKPYQKVILTNYRSDRMRQLAHLLKPNRKFNYHNPFLIKDIHLITLVPFPDVDAITLFEKQNLNNTLGDVLNDHHIKQARVAETEKYGHISFFFDGGINKHYASKTQYLIPSQKVATYDLCPQMSASLITKTIIDHYFDHDVFIVNYANPDMVGHSGNMKQTIQAILSVDSEIQKLYDFFKKNNGVLMITGDHGNAETMIDANGQIITSHSINDV\*FIITDNNIVFDQTQKFSLANIAPTILEYLNIKKPIEMAASSMIKKIHK\*

>UUR10\_RS01020 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine/threonine protein kinase

MREQIQTNSILNHKYKVVKHLADGGFSKVYLCCFLSDETKFIVVKVLDISDEKQQMVVYDELRISNLIKNSNSDKRSYIMEYYEYFESGSLETDDKRIYIVFEYIDGLTLREYLDEFKTVTYVKAVEIIRQVALGVSFFHSCNPQIIHRDLKPENCMINKTLSKIKIIDYGAASVFYNREDLTKDQEIKCTIIYASPKLLSLGQKVKEQASKGLNKNALSLINDALGVNYDIHSLGVMLYELITGTNPFSEHTIKDDRDYLEK\*TTYDVEPLSSINKTIPKGIDNILIRCFA\*KKEDNKLLYKDIYTLIDDLNNVMDPESSLNQDYIKPLNKLRIYRKNVAGLYEIKGKDRK\*YLQK\*FIILVGCLSIILIILLIIILSFKKSGAI\*

>UUR10\_RS01855 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 alanine--tRNA ligase

MLKLSTNEIRKK\*IEFFESKDHLFIEPKSLIPKNDPTLL\*INSGVSTLKDYFSGKVKPPHKRLVNSQKAIRTNDIFNVGLTSRHHTFFEMLGNFSIGDYFKKEAID\*AYEFLIDVLKIDVKKLWVTVFEDDQFTYDE\*IKLGIIKEQIIKCNRDRNF\*DVGNGPCGPCTEIHYDRGEHFDPNKVGSKLILEDIENDRYVEI\*NIVFSQFNNDGHNNYTELLQKNIDTGAGLERIACISQDVPTNFDSDVFMQITKSVEQFSEYKYDMNEYFHPNVAQNKINFAYKVIADHMRATVFAIADGAIPSNKERGYILRRLIRRTMVLVRRLNINNLL\*VDAVVNAIASTMGDFYTYLKDEKTLAKIKMILNKEVQLFEKTLQLGLNIFESSIHNQELDKDITFKLVDTYGFPIELIKEICEQRNVKVDLEAFDAMFKHHQLVSKANKANLKVMESQNESLMQLDVDSTFHYEIFK\*ENAKIITLFNEDFELVDGLDHEDGYVVFDNTCFYATSGGQQHDTGYIIKNDQQFFVDDVFKAPNRQHVHHVKNASLSMNEYVILQINEQDRKSITANHTAEHLLHYCLKQVLSPDIKQEGAAKYPHKVTFDFTYHAQPTKAQLDKLENVLNEMVQSNFDVQELHMDLDEAKAVGAAAYFEDVYKKLKGKLRVIKMGPSIELCGGTHAHHTSEIERIKIVECASKGAGS\*RITMVTGHDNLAKYIHDLYVEYLNEINHLKANLDINDHKLNDLYNAFAN\*KNLSIDDYDLLNEKFTELKQALINFKIEFDKQNAKQAIIDIKNTFNAQQTNKRIHVFKNTDNKNIFNALNELINENQNTLFISFNLDENKIQYLLAINEKFATTNQINLNKYIKELNTISNGKGGGKPYFVQGGTSEQEKLDELLTAIDK\*VINA\*

>UUR10\_RS02230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex transferase subunit TsaD

MEEKYLILSIESSCDETSLALFENNKLIAHKISSSASAQAFHGGVVPELASRYHEHNINRLFVDILNETKIDPLTITHVAYTAMPGLPGCLHVGKVFAKQLASLINAELVPINHLHAHVFSASIDQELVFPFLGLVVSGGESCLYLVSDYDQIKILNQTQDDAIGECYDKVARILG\*NYPGGPIIDKNYQEDLATLEFIKSQPAAKNFSFSGLKTAVINYVHNSKQKKLDFDPIVIASSFQKFAINEVIKKVKYYLDLYQLKRLAIGGGVSANSLLRKKIRDLNVISYIPQMIYTGDNAAMIGAYAYALIKNHKKSILIK\*

>UUR10\_RS01110 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L23

MELTRVILHPYTTEKTYSIRNKSEHETLTFIVDKNANKYQIREAFIAIFGLKPLKIRTTNRGPAKIRTSTARPGYTKAKKIAYIVMPIGVKVAVSKEEVEAANAK\*

>UUR10\_RS02255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit alpha

MFINLNVHSYYSLLNSALSIDDLIQHALDNNQPYVCLTDLNNMYGCIEFYDKAKAHNLIPIIGLEFEYQNTTLVAYAKNYNGYLKLIK\*SS\*IMTNTTFIIQEDFDDLIIVCKKGGLVFENPNFYQAQNQNASNAIALQSVFYAQENDKTVFLAMLAIKNDLKLDDFIDCHEFDKNYFLNDHEAQSLFSTIALDNLNKVLNELQVEIHDLPINIPVYDKNNLTVSSEILKQLCISGLKQRLNAHDGQVKKVYAKRLKYELDVISEKQFDDYFLIVYDFINYAKSNGIIVGPGRGSAAGSLVAYCLYITDIDPIKHNLIFERFLNPTRKSMPDIDTDIMDEKRDQVIEYLFEKYGNDHVAYIVTFQRLKAKMALRDVGRILGIDLKVIDKICKNIKTDYDEDIDLAIKKSATLKEMYVLHKELFEISKKLIHAPRQIGTHAAGIILSNSSITNIIPIQLGINDRPLSQYSMEYLERFGLIKMDLLGLKNLTIIDNVLKMIYKTQNKKIDLFNIDYNDKFVFQDLAKAKTNGIFQLESPGMKKVLLKVKPQNIEDISIVSALFRPGPQQNIKTFVERRFKREEFSY\*NEQTKKILEPTYGIIIYQEQVIELVKTIANFDIATSDNFRRAISKKDEKILMQLKDDFINGALANNYKQPLVNQIFEYIFSFAHYGFNHSHSLAYSYISY\*LAYLKHYYPLEFLSVLLSHTSASKEKLLSYLDETKDFNISIKGPDIQHFSNDFVIDNHKQIIRFGFKTIKGFGDELLKKIKLALENAELSDYISYIDALKKGNISLKNIEILIRIGAFDSFEINRLFLLNNLEEIFEKTGLNGHFFDLNLVGLDYANDMSINERFQEDEIQYLGINLSSLNYTNYTNEIDYSNLKYEIESFNEINTNYEVNIVAQVLNIVQSKTKKGNDIFYLDVLVENKKEKLTIFQNSKHLVDEIDINGIYVFGVKLLNHFNFIVSVKQRV\*

>UUR10\_RS00415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit beta

MEVFVSIKKLIEAMKFSTTIANTNNANALLLGVLIEVNENKITFKTTNNQVSGYKEISDGFEYFSSGKILVTAKILLGLISKLKDKSVLLKQVDTNILLIKTENFETQINTMNIESFPSLNFSLEDYVKISLPHQIMQEINAKVLPNVLNSQGIEKIQPISGVLIDTETLDNQLIAIGTDKIKASCLTKPYLGEKFKFIISYSTMKLIMEVLRNVEYSNNQIVDFYVRNKSLVFKVNDAILQTRMIDGVYPNVYSIFNETNEEKNYVFDRRLLIEIIERGMNIVMQEQNPKISIKIENNEAEISLTTFEIGNMKEKMPIINLSNANVEFIVNPSLLAHVLKNFENNDVNFKVKDEILRPIIFIDAKDLGFKQILSRIKN\*

>UUR10\_RS00760 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 signal recognition particle-docking protein FtsY

MGFFKKIFNKILGKKDTGQVSEEISQKNEENRILKLEDNSINKFNEGLRKSSSALTNAINELATKYIDINEE\*YEHLEEVLIGYDVGYVATNKIIESIRNEMIYQKVNDPELIKSIIIDKIFIYYIQDTEINTEINLKQNQTNVVLVVGVNGVGKTTSIAKITKKFINENKKVLLVAGDTFRAGAVEQLKV\*AQRLNVDIELPIKEGQDPASVIYAGVKKGYEQKYDLVICDTSGRLQNKINLMNELKKIHDVIHKFDEHAPHETLLVLDATQGQSGINQAKAFNEVTKISGIILTKMDSTSRGGIVLAIKDAFNIPVKLIGLGEKLDDLSVFDLEMYVDSIVLGMKLDVK\*

>UUR10\_RS00550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-dependent zinc metalloprotease FtsH

MHFFKKILNLFTSKIESEDNSVKKDDLTQPRKQSPEARKKRNRRIIF\*LIVLLIIGTIIGVIIYFSVRKEYDSVIVKSAQTEIVNDKRVLYLNTVRPNSNQITRYTIDEDQLLAARVNILNNTNFQIISNASSLGLSRISFNIVREGVEKFKIGETSIYTPISGATNNQ\*N\*LTSIIAQNAGIPSSGFNAQVIISPLISIIFFAIFLYIILRVSKAQSDSLLGTNKGNAKLTKSSVRFSDVAGIAEVKEELIEIVDFLKEPKKYVAAGARIPKGVMLYGPPGTGKTLIAKAVAGEANVPFFQTTGSSFEDTFVGVGARRVRELFEKARKSAPAIIFIDEIDSVAKKRGNSLTAVQDQTINQLLSELDGFDTSSGVIVMAATNRLDTLDDAILRPGRFDRQISVNLPDILEREQILRIHSRNKNLSAKVSLEDIARRTAGFSGAQLENVLNEAALLSVRDKATSIHMNHLDEAIDRVIAGPSRPNKVISEREREQVSYHEAGHALIGLYSPGADVVQKITIVARGRAAGYTLQTPERNENILQNKTELISRVRTALGGRAAEELIYGPNEITTGAANDFYKITNIVRAMVASFGMTDVGLTQYIATEGVDNPYRNNYSEQTALAIDIEIEKIIQREYKIVKEMINEYREELELIVQTLLELETILKPQIDYIHQYKQLPPEVIANKNKREASQKQANSSVEEAKVVDDKEKDQKSN\*

>UUR10\_RS01145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S17

MERSRRKVLEGLVVSDKMQKTVVVSVETKSKHPIYRKLVISHKKYHAHNDNDDAKVGDLVEITETRPLSATKN\*RVSKILERAR\*

>UUR10\_RS01200 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nucleoside monophosphate kinase

MKILLIGPPGSGKGSVSELLTKNNALKHVSTGNLFRAILKEDSELARKIKEINVSGGKLVPDEITNQVAKSAIDELIKNQQSFILDGYPRTINQALALEQYCDLDYIFYLDINHQELMKRLTGR\*MCPKCAGIYNIHFKKPQVDGVCDNDQATLYQRADDHEDAVSIRLDEYDKLTLPLIKHYKTNPRFIKINANQPIKDVYEDINNYLKQNK\*

>UUR10\_RS01090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L20

MRVKGGSVTRQRRKR\*LEKAEGS\*GTRNTSYRIARQTVIRAAEYAYRDRRNKKRDFRKL\*ISRINAAVRELGYTYSQFMNALVKANVVTKDGQGLNRKMLSELAINNPEAFNQLVNKVMK\*

>UUR10\_RS02750 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S4

MSRYTGSIYKKSRRLGFSLLENNKEFNSGKKRTYGPGQHGNKKVKLSNYGQQLVEKQKLMFLYGLNDRQFRRLYRVALGRPGVLTLNLLQVLESRLDSLVYRAGFAPTRRAARQLVNHSHVLVNGKKVNIPSALVEVGSTIALKEKSLEMPLIKNTLNKPADFIELVDKDKKVAKLSRLPERSELPADVNEAYVVE\*YNRLM\*

>UUR10\_RS00545 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypoxanthine phosphoribosyltransferase

MKDIDPRIKEVLITEEQIDQKITEAAN\*INKEYEGKEPIMIGILKGCIPFIGKLLPKIKVDMKLDFLAISSFKGGTSAQTEPEIITDLKFEVKDQDLILVEDIVDTGRTIKKVYDLLKIRGARSIKLVTLVDKKDGRLVDLQADFACCDIPLVFIVGFGLDYKEIMRNLPYIGVLKEEVYQEDLNNKNEGDGE\*

>UUR10\_RS01175 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L6

MSRIGNRKLTIPANVNVSVESGKVHIVSQTAKLSVDFPVNLISVDVVDNTIKVSRANDEKQTKMFHGTVNANIANALVGVTTG\*KKELEVKGVGFRAKVEGSKLNLGLGFSHPLLIQIPTGLKIETPSATEISISGSDKATVGAFAAVVRAYRKPEPYKGKGVMYKGERIVRKAGKTADKKK\*

>UUR10\_RS01865 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 leucine--tRNA ligase

MYNHNKIEKK\*QKY\*LDNKTFKFVDNPNNPKKFYVLDMFPYPSGKGLHVGHPKGYTATDVISRFKRLNGYDVLHPIG\*DAFGLPAEQYALETNNHPHTFTQQNIKIFRKQLQMIGFDFDYDKEVDTTDPQFYQ\*TQWIFVQLYKHNLAEIQDIDVN\*CENLGTVLSNEEVVLNDKNERVSERGGHPVVRKPMKQ\*VLKIVDYADKLLDGLNEVEFSESLKSLQRN\*IGKSIGTNVQFKIKDSHLALDVFTTRIDTIYGAQYLVVAPEHPILKSIVSEQQASVVQAYVDQTKKISDLDRIADTNKTGVFSGTYAINPINQEIIPI\*VSDYVLMNFATGAVMGVPAHDERDYAFAKKYDLPIKSVIDTKQSLPYTGDGLHINSPMINGLNIEQSQNILNDYLVKNHLAKRVVNYKLRN\*IFSRQRY\*GEPFPVLFDENNQIKIIEDLPVLLPNLDEFKPSKTGESPLANAQE\*LYVEIDGKKYRRETNTMPQ\*AGSS\*YFLAYILKNEDGSYTPLNSEEAKKRFAK\*LPVDVYIGGQEHAVLHLLYARF\*HRFLYDIGVVPTKEPFYKVINQGMILGENNEKMSKSKGNVINPDDIIASHGADTLRIYEMFMGPLTASLP\*SPDGLDAMRK\*LDRVYRLYHNLSELEVVEDVNKLNEEIIITYHTLIKNYTKAINEQAFNIAISEMMVFVNVLYKNKVINYKLLDNFLILLSCFAPHLAEELYSLNHSESVCLQKMPIYDEQKIIAQNVTIPIQINGKLKHTINVLRDTNAEQLINLALACEQVKQAIGDQPIKKQIVVVNKIINFVI\*

>UUR10\_RS03360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transketolase

MNRYVNAMRSLALQAINKANQGHSGMSISAAPIIYTLYKGLMTISKSHPK\*FNRDRLVLS

AGHGSMALYPVFYFSSLLTLDDIKNFRNDNHLTPGHPEVLSNNYIDASTGPLGQGVANAVGMAITESYLRAEFASLKGVVDHYTYCIVGDGDLQEGISYEAMSIAGKLKLSKLIILHDSNDYQLDSAVSDVNIEDLKMRVESMG\*NYLKTDNNPENIFKAIAEAK\*KKNVKPTFIEVKTIIGEGTSFENSNEAHAAAISKEELEKFGKRFHTKTNNFEFHQEIFDHFFFNVVARGESAYNQ\*QQLVDQYMQTNPEQMQRLLNYINGNYEDLNKMLDENKIVNLSDSTRSYLKQYFAQLKDLKSALVLSADLAKSTFTKIGENAFNDDYKNPYIKFGIREFAMAGAMNGISLHQGAKAIGGTFLAFSDYMKPAIRLTAISNLANLFIFSHDSYAVGGDGPTHQPVDQLPMLRAIPNVEVIRPADHYEVKHALSYSFKQKQKPICLVTSRQAIKQINEQKPQDFTKGAYIINSPFSFSENPDYTIIASGSEVSLANDAAKEIFEKHQLKVKVISAFNLNLFLQQKPEVIKNLVSSKNGLLAIEASSEML\*\*KLSVYTNKFMQIAANQFGRSADGNKLMHEFGFSVENIINQLLNKK\*

>UUR10\_RS00100 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 dTMP kinase

MMLTKNSNELKSPKKGLFIVFEGIDGAGKTSILKQLLDVLKEPKLVNKIFLTREPGGKNNTAAELIRDFFLKNLEAFDPLTLAYLYASSRAEHVKKTINPNLEKGHIVISDRFVHSSYIYQGIVQNQSLEVIHHVNQQAIGNLEIDYIFYFDVSVNNALNRMKNRFDNTNAFDSQNKQFYEKLLKQYPSVFNAYNQPKKIIFIDANKSENEVLCEVKERLLEIFKEHKYI\*

>UUR10\_RS01525 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MNNNEIEDELDLENFNYQKALEVPNLKAINLTEDEFNLHF\*DIVGVYRSYLNNLKEPNDSGYIYELNRNEYNHLCLVVIKKESKVDKVKKNYILNTIKNMDYDISLTDDSQIFSKKSEILDNDLLVERNKLINFFLEEARKNKKQSANKEDNITTNDQQLKSAFIYGDFGVGKSIITQAYTNTISLKYNLKIAYITLNELFKNVIQFFNYKDISDSVVNELINELSNIDVLVIDDFSSGNLNY\*SISTILMPIIENRLKSMKQTIFISNFSIEQLNNSTKNIANIEEQKAKLRLFNRIECLTYGNVFKIKGPSIFKVTNNL\*

>UUR10\_RS00720 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQSNTKLVKYSKIIANRLKAYSNQTRFIEIKTAFELNNEQKQRIKKTIINRFGDERPIKFIVDPSLIGGVSLKINLEIIDSSLKTKLNQIINIKEKEGA\*

>UUR10\_RS01835 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 asparagine--tRNA ligase

MQLKIKEIFDQDYTKLEGQKVQIKA\*VRSNRDSKKIGFLVLNDGSSLTNLQAVYRVDKISNYEEITAARM\*AAVAIEGVIKLTPTAKQPLELEVLNAQILKQSDEDFLLSNNDLSLETLRLNAHLRPRTNLFHAIMKVRATLAFAVHEFMNQNEYS\*LAAPLFTGNDAEGAGETFSIQKFDNEEFFGKQTHLSVTGQLQAEAYAQAFGNVYTFGPTFRAEKSHTNRHLAEF\*MIEPEMAFVDLKGMQDIVENLIKHVIKAVLEKNQQELEFLAQRNDENLIKKLQKVVDSKFERIEYKDAVKILANAVKSGHQFEDNEIFFGMDLGSEHERYMCETYHQGPVFLQNYPKDIKAFYMKLNDDQQTVASTDLLIPGVGELVGGSQREDNYEKLLKRCQELKMPIESLQ\*YLDLRRFGYYMSSGFGIGFERLVMYVTGVNNIKDTIPFPRSHGQIEF\*

>UUR10\_RS00620 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 dihydrofolate reductase

MLKLI\*CQTLNGGISKNNKLP\*YVKEELEHFYKTTKNHKIVMGKSTFDSLEQKPLSNRTNIIFSSIMQTPEDQSYFVTNDFQQLLNDAKKEDIFIIGGKELFDIFLNHADALIVSVLNDYYDCNLYMKVDYNNFNLDKKDVYDNFVVNYYSSKKDK\*

>UUR10\_RS00050 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L10

MANVRPSVVFKQQEVDHMADILKNSKSFIVFEYHGLTAANILALRNVLHSSNSKLFVLKNNITARAFEKAGVTGFEDRLTGPNAIAVAMDDEIAAIKAVNDVAKEFDFVKIKGAYLENKFADTHKIDQLAAIPGREGLYSMLLSCFTAPLRNVLYGLKAVAEQKGE\*

>UUR10\_RS00700 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit beta

MTEVKKGKINQILGPVVDVRFPSE\*LPEINTALELNNHGSKLVLEVSQLVGDNIARCIAM

DTTDGLVRGQEVINTEKPIMMPVGKQVLGRMFNVTGDPIDEQPAPTGKRMPIHRPAPSFAEQAEAIEILETGIKVVDLLVPFAKGGKIGLFGGAGVGKTVLMQELIHNIAKNHGGLSVFAGVGERTREGNDLYYEMAESDVLDKTALVFGQMNEPPGARMRVALSGLTMAEEFRDAFGQDVLLFIDNIFRFTQAGSEVSALLGRMPSAVGYQPTLAFEMGQLQERITSTKKGSITSVQAVYVPADDLTDPAPATTFSHLDAKVVLDRAIASLGLYPAISPLQSTSRLLDPLVVGVKHYSVARRVIEILQRFMELQDIIAILGMDELSEEDRQLVMRARKVRNYLSQPSHVAEKFSGQPGLSVKLEDTIEGFRKILDGECDDIHEQHFLYVGKIDDVFEKVAKSK\*

>UUR10\_RS00870 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit beta

MSQKGIKSLTISIASPEQILS\*SKGEITKPETINYKSLKPEPNGLFDESIFGPSKDYECYCGKYRKVKHKGKVCERCHVEITESIVRRERMGHIELAAPVAHI\*FTKELPSPSKISLLLDITYKEVDQVVYFVNYIVLDEGNNEYDGKSIFNKKEVLDLTSPKNSIRSRNKLRRTLRNIQERIEEELNHEREALIQDFDYRLAVTYDQMLKDSNIPFSVKDVMAFIEKHTGVRFGIGAEAIHELLEKLNLEEEHEKIKQAIQNSPNAYDQKTKRLLRRLECVR\*IKDSGSKPE\*MVMTRIPVTPSETRPIISLDGGRFTTSDTNNFYRKIIIRNERLKQMQATDAPEILLDNEKRLLQEAVDSLFDNNSRKKPVVGKDKRPLKSLSNHLKGKQGLFRQNLLGKRVDYSGRSVIVVGPELKMYEVGIPALMILKLFRPYIISELIRKRDEFGNEIQPICANIKLAEQKILAQDDEI\*PVVEKVIKQRPVILNRAPTLHRLGIQAFEPKMVDGKAIRLHPLVTTAFNADFDGDQMAVHIPLSKEAVAEARSILLAS\*HILGPKDGKPIITPTQDMILGIYYLTKEKFPQPIEEMILKDPVQARIEFINHFHIFATQDEAIRAYKLKTIRINDVIGITTKAFDNKSFSKEGILVTTVGKIIFNQAFPTNFPYINDVKNLYGDNQFEIIGMHESILDYLKAYNLKEPLTKKTLSTVIDYLYKVSEIEVVPQTMDKIKALGFKYSMISATSISAFDIPSYDQKYEYFKETDELVAKLREFYLDGKLTDDERYTKVVQA\*SQTKDKVTHDIEKLINSDEYKDNPIVIMAKSGARGNTSNFTQLAGMRGLMSKSYNYDQKNNSGVIKDTIEIPIKHSFIEGLSVSEYFNSSFGARKGMTDTAMKTAKSGYMTRKLVDSTQAVVIKGNDCGTKEGIIVREIRNTKDNTSIESLKDRIVGRFSINPIYDTKNKLIIEGDKLITNEIANMIQNSGIREVEVRSPLHCSSLYGVCQKCFGLDLSTNKLIETGTAIGVIAAQSIGEPGTQLTMRTFHTGGVAGDTNITQGFERIKQLFDCIQPQENEKAIISQVKGTVDRIEKDSNTNGYNVVIKYNKDNFVSYPTRPNAVLRIKTGDNVVAGQKITEGSIDVNDLLKYAGIENVRHYIIKEVQKVYRMQGIEISDKYIEVIISQLTNKVTITNPGDSGLFVGETISINEFTEVAQSMLVNKKKPPSAINQVFGLDHAPSKSGSFLSAASFQDTKKILTDAAARSQKDMLIGLKENVILGNLIPAGTGLKDVEEVIAYGEEMYKKQY\*

>UUR10\_RS02455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phenylalanine--tRNA ligase subunit beta

MILSLNLLHKISPKLKKISLNELCTALMDLGCEVETINTIKPSTNLVFAKVLEKTKHPNANHLNLVKVKANQEVYEIVCGADNFNVNN\*VVLAKINAELANGLKITPRELRGYVSNGMLCAYSEINPEVAHFLGQTDLDGILVLHDSYDHYKTPNQIFNLDDVILDLSIPSNRNDLNGYF\*MAKELCAYFDLEYVIDATINHRSHKEIVNVRILSDDVNSYGMIEVKNIQNYTLK\*NTKSVLVNNQIKIVNNFADNMNFLTLLTANPLHAFDAHKISGQIIVKNAEEDSILLGLDQKEYAIKKGDLIIVDDQKILALAGIIGSNDSKIDNNTTTAYIECANFNPLLIANTARRLKINTTAAMRFSKPLTNYVTKATLKKLLAHFKLDAKLICYFKHLVHNVIKNKIDQVSDFVGTKINLDTAHTFLKRLGYKINKTNLITPSHRYDVLNEFDVYEDIMKKFSIQQIKPQPINFDILSFKNNIAYDFEKKVSDFLVDQGLFECKTYNLKSQTQAYEIDFFNFQQAYEINNPISNIRSHLKLNNLNSLLEVLEYNQNQKNELENIFEISKINPINSNQQTILSIVLCKPLINAKLNDSIVVNNFVTTKALLHVLLTKLNISYVYDTNHIVNELYENNQLALVNENKQVFGFIGQLKNQIKKTYGLNNDIFVINLNLTSYLNQEQAITKVIKPSVYHDIVRDVSVKLASNVDLNDVMDNIEKIKNIRKVEISDLYVKDDEIIYTFKYYINDYSSNLSSEQIAVIEQEVNNYLKQF\*

**Supplementary Sequence file 3 Human non-homologous essential protein sequences**

>UUR10\_RS03090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L1

MAKISKKLSAAYEGIDKQKAYPLFDAIKLAQEKSITKFDGSINIAVKLNLDTTKVEQQLRGSISLPNGNGKNVRVLVLSEDITKEQAAAVGADYFGGADYIQNIEKMLNQIDVIITNQKMMPLLAKLGKVLGPRGLMPNPKIGTVTNDVLKAVEEFKKGRIEYRTDTYGNIHMSIGRVSFETAKIEENANALLSLIRSKKPATVKGQYIQNIAISPTMGPGIKVIINNN\*

>UUR10\_RS00315 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 SsrA-binding protein SmpB

MIVSNKHARRNYELLEFFECGIVLKGTEVKSISRANCSINEAYVQIVKNEALILNMHVASFFEGNNFNQDPYRNRKLLLHKKEIIKLQHLVQTQRMTIVPTKIY\*KNNKLKVEIALAKGKQLHDKREDLKKRDLARESRLF\*

>UUR10\_RS00735 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase subunit C

MSSFIDITNVISSHVEANLPAVSAENVQSLANGAGIAYLGKYIGTGITMLAAGAVGLMQGFSTANAVQAVARNPEAQPKILSTMIVGLALAEAVAIYALIVSILIIFVA\*

>UUR10\_RS01165 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 type Z 30S ribosomal protein S14

MAKKSLIAKQKKHQKFAVREYTRCVRCGRPHAVNRKFGVCRLCFRDLAYAGAIPGIKKAS\*\*

>UUR10\_RS01565 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 inorganic diphosphatase

MKLNVTIEIPKNSNIKYEYDRATKEITVDRILYGSMVYPHNYGFLKEALDYDGDELDVLVFADQAFQPGIKVPARILGAMKMIDGGETDTKLLAVIDVDPRYKHINTFKDIPLH\*LAEVQDFFENYKNLQNKKVEILGFEDEV\*AQKEYEECVALMQEHGHLKKDEFVSKMMKQRPEKYSQ\*

>UUR10\_RS01080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-3

MNTPNNQRHMSSNNDARKNQPLINDQIRFRTMVVIDDHGNNLGEMNRIDALNLATSKNLDLVVIAKKGNIPVTKILDYGKYKYEQKRRQKESRKNQTIIKVKEIKIKPMIGEHDLKVRAENAKR\*LEDKDNVKFVIEARGRMCTKDEFILQAYEKFIDLIKDYGTVVQANKKVSNYRYETIIEPIKK\*

>UUR10\_RS01340 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate phosphoribosyltransferase

MGPVIPNTRLIDFKFDRDLLNKAYTSHYFIKTCKIIELHAPSHSVIMQFTHFSKTPIMVCGTSEVLALLEFCLSRKELKQLKIYYVPDGHVIKPKEALFAIEGPYEIFG\*LENIIDSILARRSSVATNCYNVLNVINDEQKVIYMSDRSDDYSLQPYDGYAAAVGGMQYFVTQKQVEFLKDINYECKVMGSMPHALIQQNNGRVDLACEMFAQTFPNDPLIAVIDYNNNVLNDLEQLRYMFDRLYAVRIDTAKDLIDNSLLSTFDNVRNHDLHGCNPYLIDLVREYLDNNGGEHIKIIASSAIDLNSIKNFNKHNSAIDFYGIGTYLTHLSIHITADLVCLDNVYGAKVGRKIAKNFAEMTLY\*

>UUR10\_RS00010 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L31

MKDIHPVSKPCVYNCVTCKKEFVINSAAKNTEVAIEVCSNCHTFFIGKQNATTTLRGRAEKLNNRFEAGLNNINKKPEKKKVQGKSEPRKSLNEL\*

>UUR10\_RS01150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L14

MIQHMTRLKVADNTGAKEVGVIKVLGGSKKRYASVGDIVVVSVKKATPAGLIAKGQMAKAVIVRTKKSIRRESGLLIRFDENACVLIKEDKTPRGSRIFGPVAREIRDRGYTKIASLAPEVL\*

>UUR10\_RS00950 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S15

MAVSKQQKHDLTVKFGGSASNTGKTEVQVAILSAEIDSLTTHMIENKKDKASKRGLYKKVAQRKKLLSYLQRVDIERYRALIKELNLRG\*

>UUR10\_RS01095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S10

MNQELRIRLESYDHRLLDDTVKTIVDISNSTGSKLRGPIPLPTKKEIFTILRSPHVNKSSREQFERRTHKRLIILENPQPKTMEALKRLSVPFGVEVTFKI\*

>UUR10\_RS01025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome small subunit-dependent GTPase A

MRAKITSVIVNNFYVYIYDLKIETKAIPKGIFKHDSHELKPMVGDDIEVELVDGVYLIVKIYDRYNQLIRPKVANVDIVLVVASIVQPDLNTLTLNKYLAFYEARNVKNVAIGLSKYDLASDSLKQKVDQLILDYQRNNYKVFVLTNEHDISLLKKFIKKHTLCLAGNSGVGKSTLINKLDPSIKQRTQEISQFLNRGKHTTTSTKLISFANGFLVDTPGFGNLEVNLTKNEMANAFSDFANYARFCKFSNCLHIDEPHCAIKKAVNDDQIVN\*RYDDYLKIMKKLPNDVLEIKTRNQNKK\*

>UUR10\_RS02135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 holo-ACP synthase

MKLVHGIDIIE\*NREELNNPSFAKRILVDDELKYYLQLNSLKEKNRYLASIFASKEAVMKAFKLKYGYNDILILKTKNERQVYLNKILIKELVLSISYTENYVVASVVGLINTVESNS\*

>UUR10\_RS01195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecY

MTNKQKKKNAFRQLLMIFKNKKVLVALIVTLSILILFRIGSVIPMPYIKLNGNFGNQGSFFSIINLLGGGGLSQFSLFAIGIGPYITAQIIMQLLSSELVPPLAKLSKSGERGRKKIEVITRIITLPLAVMQAVIIINLMTRANGFISIVPNAPFAIGSPLFYVTYIFLMVGGTYISLFLADLISKKGVGNGITLLILTGIVASLFNHFIAIFSNLGSLTSSKVSQIIGFILYILFYIMILIGVVFVNNSTRKIPIQQTGQALILDHEKLPFLPIKIMTAGVMPVIFASSVLAIPAQVAEFLDKQSMGYYVIHNYFIVDS\*TGLAIYVVLILLFTFFFSYVQLNPPKMAEDIKKAGRFIPGVQVGMDTEKHITKVIYRVN\*IGAPILAFLACLPHLVALVAKTINHGIPVIQPSTIFGGTSIIIMVTATLEL\*NAIKSTSTSTSYAYQRKELETAITISVESDKSSKSQI\*\*

>UUR10\_RS01140 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L29

MSSIAQDLRKKDSLELEKIVIELKAKLLELRFAAANGEAEKLHTAKEIRKTIARALTILNERELAEKLNNKEANK\*

>UUR10\_RS00430 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA topoisomerase (ATP-hydrolyzing) subunit A

MALKKPKKSRLTTEEIKQQLEGSTIKEQSITKEVETSFLDYSMSVIVARALPDVRDGFKPVHRRALFAAFENGMTHDKPYKKSAR\*VGDVIGKYHPHGDQAVYQTIVRMAQEFSMRYLLVDGHGNFGSIDGDSAAAMRYTEARLSKISYELLKYIDKETVDFVPNYDASEQEPSVLPSGFPNLLTNGTTGIAVGMATNIPPHNLTEVCQAIKAYAKNHDISIPEIMEHLKGPDFPTGAEIYGDSGIINYFNTGRGSVTIRSKYEIEDIGQGRVAIVVTEIPYMVNKVNLIEKIVELVTNKQIEGISDLRDESSRDGIRIVIEVKRDVIPEVLLNKLFKTTALQTNFSVNNLALVNGVPMVLNIKEMIKYYFEHQIEVLVRRTKFDLRKAKERIHIVEGLVIAVNNIDEVIKIIKASGDDDIASKALIARFGLTELQTKAILEMRLRALTGLNIDKLKKEYEDLLLIIEDLEDILENYDRQVNIICENLDYLIEKFGDERRTEIMYGVSSHIDDEDLIPVEDIVVTMSKRGYFKRLPIDTYKNQRRGGVGVQGLKTYEDDDVEKILVANTHTDLLFFSDLGRVYRLRGHEVPLGSRQSKGIPAINFLPIEKSESILTILPIDNYEQGSLFFTTSKGIIKRANLSDFESIRANGKIAITLKEGDKLFSVMQTLGNDEVFIGASNGNVIRFNENDAREMGRIATGVKGINLEDDEYVVGTGLSSHGEYVLAVGSKGLGKLTDINDYRLTKRGAKGVNTLKVNDRTGNLVSIKVVNRDEEALIITTSGKVIRLSIQDISVIGRNTSGVKLISLENKEEVKSIAIFKKEEIDDNDDEQKTSHGNEHNLE\*

>UUR10\_RS01230 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA-directed RNA polymerase subunit alpha

MRKFLKYQLDVPSINSEDKNRTVVKIAPLEIGFGDTLGNALRRICLSSIPGASMFAVKFGGYSHEFQPYEGVKEDITHIILNLKNLAIKIDELIYSEDYFNNLLIDK\*PKMKINFKGPGVITAKDIVCPVGFEIVNQDLYIAEVTKPIDVEIEIFAKTGRGRVDFNTNKDFVSTLHIIATDSNYSPVLHYAYNVEMIKDSKSSMSEILTIDIATNGTISGSEAIAIAAKIMQAHLEPIMNIDKTINEMIIMREREEEEKRQNASISIDDLDLTVRAYNALKQSGINTTAELIELTKSQLEKIKNLGRKSVTEIIQKLTERSLELKKD\*

>UUR10\_RS03240 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (guanosine(37)-N1)-methyltransferase TrmD

MKISILSLFPELYETWINHSIISNAIKNNQVTIEIINFRLYTNDKHKKVDDYQYGGGAGMVLMIEPIVSAIRAIRTPNSYVILTTPKGQVFNQELANEFVSKYDHIIIIAGHYEGFDERINYYVDAQYSIGDFVLTGGELPSMVISDAVIRLLDGVISSSSLESESFNNYLLDYPVYTRPVVFEGHQVPDVLLSGHHKNIADFRKQQQEMITKKNRPDLYQKYLNSKK\*

>UUR10\_RS01445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 elongation factor P

MATIIQAKDLRAGHTFLYKGSIYQVIENSFNKTAMREGIVKCKVKNLRTGAITVEVLTGEKVEQAIIEKSKMTFSYDDGSGYVFMDNETYEQISIPYNQLS\*EKNFIEEGTEVSVMRYDGELMGVSLPDQLVVTIVEAEEAVQGNSVQNATKRA\*LASK\*EFQVPQFIKSGEKVIINPSNGQYVGRAK\*

>UUR10\_RS01155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L24

MNRIKKGDTVVVISGKNKNKSGVVIQVNPKEQTALVEGVNKIKRHQKKDQTHEQSGIIEKEAPIRLCKLALVDPKGKDKGKATKVKYLLKDNKKVRVARKSGSELDANKK\*

>UUR10\_RS02205 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nucleotide exchange factor GrpE

MSKNNENIKHQNEGKLHDQVDKKETKNHAKQEFKYKELYEHELKKNKELQNVNELLINKNQQLEIQINQLNQDFVKQLETKTKQAQEILEQKVNELEARHETKVNDAVFKIFKFKMEPLLDAINHFTKIVNQNYDDPKIQAFIEGFKMFSQNMIDGLENLKITKISPQINDMLNDDTMEVFEVVQNTNKPSMHVTEVISDGFKYNDKVIKFAVVKVAK\*

>UUR10\_RS01170 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S8

MYLDPIAELITKINNGRKAHKAEVSFATSKLKTAILELLVKEGYIKSYDIRPTENNKSETVVKLKYKNQTTSSINGFKQISKPGLRIYSTHLNLPKVLNGLGIAIITTSKGVMSDKQARKENVGGEVIAYV\*\*

>UUR10\_RS03455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L34

MKRTFQPNNRKRAKVHGFRARMKTKNGRNVLARRRLKGRHSLTVSGEK\*

>UUR10\_RS02910 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 UMP kinase

MSKQRIVIKISGACLRQDDNSIIDVNKINDLAKQIKEISKKYIVSIVLGGGNI\*RGHIAKELGMNRNLADNMGMMATIINGLALENALNNYNVDAIVLSAIKCDKLVYESSANNIKKAIEKEQVMIFVGGTGFPYFTTDSCAAIKAAETESSIILMGKNGVDGVYDSDPKTNPNAQFYQHITFNMALTKNLKVMDATALALCQENDINLLVFNIDKPNAIVDVLEKKIKHTIVSK\*

>UUR10\_RS00095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit delta

MKYSFANLLIQSPKTSLTLGVEQIMLAFINEKNHEQQAYYINKVKNNQYFDLKIYDSLSMKKSDVIDLQNAFLYDGIEDINLKFYLIKNIDLASKYVLNALLKFIEEPPKNTIAIFSTKNLNQVLKTIKSRCQLFYLPANYDLYHQLIKQINQPISATECDLIFDDLDELKTLLENNEINEVLAYHAKLNDIKSFETLNDLKETFKNLSILQIHYLLKLIFIKINNINSKQAILDLMRANLKININKNSLFTIIYTIIIENRGD\*

>UUR10\_RS00740 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit A

MENYNPLDIMIALPHIAAIIIVTLIIATISLIYFSMIRKLTVHDVPNRFVIIIGMIVDYFRGLVVDTMGAKHVKLAPYVLFTFCYIFTANLVSLFGFKEATTASSVPLAMALATVVGGQIVALKYQKASFFLKFTFKIKGFPIMVNPLEIVSKLTPIISLTFRLWGNISAAAILLNITY\*AFAGFTNVVP\*VGVSLIAAVIILPILIGYFTCFAGTIQAFVFTLLTSIN\*GLEIKEGEEHYAHLAHKKAEKLAAKKLAELDAQNQAQNNEVQVVL\*

>UUR10\_RS01130 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S3

MGQKVNPNGLRFGINKQ\*LSR\*VPTDQLQMAK\*LVEDDKIRKYLSTKYKNAGIDHVEIERDQQRVNVYVYAVQSGLLIGTEASEKKLIELAINKIVGRKQLVSLKVVEVQIPELQASLMAREIADAIENRVSFRIAQKMVIKKVLKAGARGIKTHVSGRLGGVEMAREEGYTQGVMTLHTLRADIDYSMQEAHTTYGIIGVKV\*INRGELFGNKLVNSVAHAANKEFSRSSKPKKGSFNRSSRSKNTKPAPKQAVSE\*

>UUR10\_RS00730 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit B

MLDKRREYIAKEITDAENAKQEALQYLENAKSEHLAAQAETAEIIAKAKSESLTLRELLEKEAREAADKIISSAKISIANERRENLERLQTEAREAAYIAAEALMKKELSREDNDKLVDQFIKELETNEK\*

>UUR10\_RS02250 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 5-3 exonuclease

MKKAIVIDGNSLIYRAFHATYKQAE\*AVENQLMPTNAIKLVASMIFKILNEDQFSYALIALDASKKTFRAQEYAAYKATRKPMDEKLVVQLPYIKKLFTAMGFHIISQPGIEADDFVGSFSNLMSKSNIDTIIYSTDRDMLQLINPNTKLKLLKTGTSIVQEINLANFALLNNGLLPKQIIDYKGLVGDSSDNLVGVKGIGPKTAINLILKYTNLENIYANLEEITPSVKNKLIEHEKMAFLSKKIATIQTDLLLDETLENFILKPYNIQELDTLFESLKINNMHNYYK\*

>UUR10\_RS01585 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusA

MSNSFKSKEFIEYFKDTAKQNEIELEVLSSIIKEAFEKTYLRTHPGENFETNINLKEGTINCFRNLVVVENEKAHNEDLETCLDDAVEILLDDARKINANAQIGDTIKQYISIDDFKSIEVGQIGSLLRQKITEIHNKRVADF\*KPSLMKMIRAKVAEINYNKQRNEITGVKVELDDQ\*KTLGYLSRKDRIGDEKFKVGETYDFIIKEVKEQSRL\*PVLLSRTEPELVEEILKREVVDIKNGNIEIKKIARIAGFKTKVAVSTNLLNIEPVAVVVGNKGLTITSISKQLNNERIDVIRYADDKRIFIANAIGLDKLKGLLVQENESDQRSAIAIVSKEDLPSVIGRGGANIRLIAKITE\*NIDVKTIEQAFEENVVYEKFDEKIYRS\*NIESINKKNVTNDEMLALIDNMQDEKVEKTEQVKDQLKQQEKQTIVSNNDDSENDDEQLEYLEGFEDFKF\*

>UUR10\_RS01665 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L32

MAVQQRRVSKSRKGMRRSHDHLTVSNTVACNECGKALLPHRACRDCKTYRSIKLSIK\*

>UUR10\_RS02195 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 glycerol-3-phosphate acyltransferase

MDQVYSVAMAYILTLIISPLYSYLIGSLNASIILSLLLKKQDIRHFASKNAGMTNMTRVYGKKLGILTLFLDIVKPIITISLTYIIYKYALNAPFVLSNGFNQAILVYFGGIFTIIGHCYPIFFKFQGGKGVASYGGFLITIDPIVAVIGIITLLIILLITKYMSLSAMITATITCFLVLIPGINYIPYYNEHFVEYLFDLNHVIKGTWYV\*LFLLISASILIYRHKTNILSIATKQERKTFLFQPKPKNNI\*

>UUR10\_RS03135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 AAA family ATPase

MSTKDLNDAILDLFCLVINNNDF\*KDVILRLEAKDFPEKVQQNIFNTIANLNEQKYKISESNILNGLGNYVIVDEQDQNYLLHKNYLVQILERTDYLVDLKDCIEIIKNASIKNKLDLFANEILSTQISLTNAKDQFKEMHEKFLEILASRTEDTIENMELIANRYFEKLNKIGNSGIIPGVIKTKYDNIDKFTNGYKPGELVVIAARPGIGKTTFCLNVMVNNVNEIIEYNQNIQPNQKEKIIVMFSLEITKEQILQKFISIKTGISNREVIENKYRIAKGYDTRSFAMQAINEIKS\*PIFVDDRPNISIVDIEAKLYDLKKRYDIALVVLDYLQLVSAGNANKNMTRTQEVGRVSSALKVIAKEINAPVIAIAQLSRKAEERDVSSNANMKNNPLVKTIDNSPKLSDLRESGSIEQDADVVAFLH\*DRKQRNAMQNDNQETRMRDDLIEAKFIVEKNRNGSTGETDIIFSKLNSKFIRATTSKE\*

>UUR10\_RS02905 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ribosome recycling factor

MNFKIYETKIREEFELVLK\*MHNEFIKLRTGRATPAILDGILVDYYGSMTPINQLANISVPEPRVLAIKPYDRSSIKDVASAINASNLGVNPQVDVDIIRLTFAAPTEEVRKNLAKKAKQVGEEAKIRVRHIRQEAQDLFKKNSSTVEDDKKFFQTELDNLTKELNKEIEAVVSHKEKDIMTV\*

>UUR10\_RS01370 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HU family DNA-binding protein

MSEKIKAKTRVQMIDELSKMLNIDKKQTKTFMDTYEAFLILELSRAKEVRFGNIGKFKVTVRAERKGINPKTGETVIIPEKTIPKFTFTKGIKEIINAGISVEDETVFLDDNDYEDDGDEFVEEYIAPESN\*

>UUR10\_RS03415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 class II fructose-1,6-bisphosphate aldolase

MFSLVNAKKMVQNAYKNHYAIAAININNLE\*IKAALLAAQETNSPLLLATSEGAVKYMGGYDNCYAMVVNLMKQMNIKTPVCLHLDHGTYEGCIKAIDAGYSSIMYDGSKISIQENIENTKKLLAIAKSKNVSVEVEVGSIGGTEDGITSEGELANVNDCYQMCLLDIDMLACGIGNIHGLYPEN\*KGLNFDLLKEINIKVNKPIVLHGGSGISEEQILKAISLGVAKININTECQIAFSNALQDHLIKAGDLVAAKQYDPRKVLAYGVDAIKNTIIEKFTKFNSLNKA\*

>UUR10\_RS03055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L33

MAIKRGVRLQCNESKSINYITTKNAKNNPDKLSLNKFCPKCRKVTTHVEIKKK\*

>UUR10\_RS03150 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 single-stranded DNA-binding protein

MNKVILIGNLVRDPEARQIPSGRLVTNFTVAVNDNIPNANANFIRCVA\*NNQANFLTTYLKKGDAIAIEGRIVSRSYVDNNGKTNYVTEVYADQVQSLSRRNQNANDHNNDKVNVDTMMGAYASINTDAAFSSNQPQTNFQSTTSNSNKNDDEEDEITS\*INLDDDLE\*

>UUR10\_RS03305 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L13

MQKSSMLKKEAAIARRQ\*YLVDATDLVLGRLSVKVADILRGKNKVDYTPNVDAGDYVIIVNSDKVVLTGQKALREN\*YNHSHYIGGLRTRSGEEMISKYSDELIRRSVKGMLPKNKLSKQILNKLFIYKNDKHSHEAQQPTILELKLK\*

>UUR10\_RS01190 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L15

MQLHNLEYKKGSRNHKEKRVGRGHGSGLGKTSGRGQDGQKARKSGMVRLAFEGGQTPLYRRVPKVGFNNDRFANKYNVVTLISLVKYETKELTAEFMYVNKIAKNEDLPIKVIGNAVLPSGTVVSAHKFSKGALESISNSKAKAQILE\*

>UUR10\_RS00405 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA lysidine(34) synthetase TilS

LTKL\*TNLINKITNKKYLAAVSGGPDSMAMLNMYKRNISVVCHVNYHKRESADRDQEIVVDFCKKNNLPIEILDVDEKVYEKYAHIDNFQAKARLIRYDFFKEIGKKYNIQHLYIAHNFDDFLETAYMQRARQSKALFYGIKESNVVNGMIVKRPVLFIRKQTLQRYCDENKIKYGIDETNELDIYERNRVRKTISN\*SLNEVYDFKKAVLKYNKEHSSFANFVELSYIEFKKNKYRYDYFVRQDDGVQYYLIYYFLIDQKISNPNENKIISLIKFFGKQINKEKAYRVQENLYMHVNEDDLISLISYDKNDVIDDPNIIEKQAGN\*

>UUR10\_RS01775 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 riboflavin biosynthesis protein RibF

MIIEITSTNIQQIRDQYFINELVIGFFDGIHLGHMNLLSDPNNQTILTFKNIPRKIKKLYDFNERIQQLEDLGFKRIFIYDIDQNNLSGEEFIDQILKPLTPKKIIVGANFTYGNNFCNASSLKQYFNVEIKIITNDVSTTKIKELIINKQVEIANKLLIKPYYRVGNVVRGDQIARNIGFNTANILCDNNLIDIAEGVYKAQVIFNNKKYDSVVYLGIPKTINTRSFSMIEAHILDFNQNIYDERIKIVFLKYLAPNLKFNNIDELITAIKNYIKLVLDKTN\*

>UUR10\_RS03335 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transcription termination/antitermination protein NusG

MAYKIKDLDSKLLSDLKIDLNHTHQ\*YIVTVVSGNEQKVIENIKDKLNGYGYGDKLSDLKIIKEKIKEVKIYEPSEAPRSMKNRANTK\*ETIVVDGVTKYRCTKIKEGNKFNGYIFLKAEMTDQI\*FLIRNTQMVTGLVGSSGKNVKPIPVPEDKILKLIADNDAKRALVSLDEQTNSQQNVVVVESHETEDLPNFEVDQQVKIVADTFFGEIARIAKIDQNKKVATVEFEFFGRINTLDLNFNDIQPYDEEAELEN\*

>UUR10\_RS00650 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 preprotein translocase subunit SecA

MNLISKISPQNRILNHARLIAEEVLKKEDEYTHFSDQELINKSDDIIEYLANNNPLDDRLVESLCIIREVIYRVHNKRAFKVQLIGAIIVYFGDFAEMMTGEGKTLTLVLVAYLNALYKKGVHMVTVNEYLVKVGAEFATPALNFLNMSVGQITANMNEYEKRNNYDCDITYTTNSELGFDYLRDNMVTNYNSKVQRGL\*FAIVDEGDSVLIDEARTPLIISGEPQEEIGNYVKADRFVKTLYPQDFTLDPESQSVALTESGVEKAQKFFNTKNYYNFENSDIIHKVTNALRANFTFFNGREYIVKKDDEGEDVIALVDQSTGRIMEGRSYSAGLQQAIQAKEQIKIEPENLTVATITYQSLFRLYKKLAAVSGTAITEVEEFLNIYNMVVVTIPTNKPIRRIDHPDYVFDNKRTK\*KYVIADVIRRHENGQPILIGTASVEDSEILHQLLERVNIPHEVLNAKNHAREAEIVARAGEYKAVTIATNMAGRGTDIKLSPESLEAGGLCVIGTERSDSRRIDNQLRGRAGRQGDIGESRFFISMEDTLFSRFATDNLAKADDKLSEDVISTKFFTRLLNNTQKKVESLNYDTRKNLIDYDHVLSNQRELIYKQRDKILVSSDNKDILYRMLDSVIDDIIYQSHNEPNEDIIDVKKLIDLATQNIFYDNYLNHDEYYGLDLDEIKTKLKNDCISFFEQKEQLMTPGIFNQILSEIMISNIDEE\*TKHLDVTSKIREGVNLRAYEQKAPLNIYVEDSDKLFEKLKHDVA\*KTVCSIGKINYVHQEYDKVNNEFIINDNEIIDNDNVIDFENTDHSLISEQEIEDSLVNIDELNDQNTKNENND\*

>UUR10\_RS00990 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L27

MNKLY\*LTDLQLFASKKGVDSSKNGRDSNPKYLGAKLGDGQSTKAGQIIYRQRGNKIYPGLNVGQGKDHTLFAKTAGVVKYTKFMGDKTKVSVLPKEDNK\*

>UUR10\_RS01210 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 translation initiation factor IF-1

MADTEKLKMLGKIVEILQGGNFRVQLENGITIMSHVSGKMRVNKINILPGDTVDVELSPYDLTRGRITYRHRDS\*

>UUR10\_RS03445 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 membrane protein insertase YidC

MSSVDKQNLMNRMRISVSHFAGASNANSTKKERRKKILNILLKVFKVIVYTFFLGIGLYGCFQNMANH\*TINSTVVGNGFELGFHVDPILGANDIRFDLIYSGTGP\*YPMSDFSFDYGPFYALFVWPIAQILLHFMYATRD\*PAGLNAILGLIIILLIIRVITMLISARATIQTERISEIQGKIAEINAKYKDAKDMQSRQKKQMETKELYQKHNVKPLAPFESMIITLPIFLIIYRVVTILRPLKFISIFYI\*DLSATPISEIFSNFTTSG\*PYIFFLLIIIPVQILSQKIPQLLAKKRNRSATTVGAKNKQQLKRVRMTQNIIAIVLAVVVAISASGIGLY\*FFNAIFTILQSYIIHVIIMKRRSNSATRIESKLAKLGIS\*

>UUR10\_RS02850 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 acyl carrier protein

MVVNVKDIIIKVAKENKINLNMNNLDVELKSLGIDSLSAMSLIMKIEDKIGVQLVDEKLLKIKNLGDLIMAFEDALK\*

>UUR10\_RS01215 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L36

MKVRASVKAICKDCKIVKRSGVVRVICANPKHKQRQG\*

>UUR10\_RS02080 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(P)-binding domain-containing protein

MSKILIIGSGAFGSALTQVLVSNHHAVDVYGINQNELNDLQQNQKNTTYFQDQKLSQPINNTYLDIHLALKNHYDFIVIVIPSFAIKNFVDSIKTLDLSQAIVVNAAKGLNLETKSS\*CDYIQQNLKIKALIGLVGPSFAIDVFLKKPTVVNLVGTDLDALIKTKQAFEND\*FKCVLSKQFEVANYISCFKNALAIGCGIIYGLEKSHNSLVAFLTKGINEMQLILETIYQKKVNPLEYFFIGDTILTCTDQKSRNFSFGLLVAQQGVQTALENKQKTVEGLNNIKVIYEIIKTKQIDAPLFESLYEVINENLTPKSLFNKSFC\*

>UUR10\_RS00005 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MSNNYQNLYDSAIKKIPYDLISDQAYEILEKAKVHKVYDGVLYIIVASAFEKTIINGNFINIISKYLSEEFKKENIVNFQFIVENEKVLINSNFLVKETVIKNRFNFSDEIMRYNFNNLVISDFNRKAVKAIESLLSTNYENSSMCNPLFLFGKVGIGKTHIVAAAGNQFANSNPNLKIYYYEGQDFFRKFCSASAKGTSHVEEFKKEIASANLLIFEDIQNIQSRDSAAELFFNIFNDIKLNGGKIILTSDRTPNELNGFHDRIISRLASGLQCKISQPDKNEAIKIINN\*FEFKKKYQITDEAKEYIAEGFHTDIRQMIGNLKQICF\*ADNDLNENLVITKDFIIECSVENDIPSNIIVKQQLKPEQVIEIIAKELNLKVDLIKSTTRKNSIVWARDIVCYVLKNKLNLTLTEIGKLLSGREHTTISHSVNKVEKILADKNSQEALQINLIIDKF\*

>UUR10\_RS01015 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 serine/threonine-protein phosphatase

MNFGFISDIGSQRKHNDDCALVIQNEHQQTLLIVCDGLGGYKGGAAASHITLETIKDNFLATNFNEYDEQQIRK\*YIKVIKLAQIEIDRAVLLDKDVYNMGTTVVASIIINDFVYTLNIGDSRAYLLSNNQSSQISRDHNLLQVLHERKVGPEVYEKHEKNLFSLTQFVGRTSNVVLSYDLFVTKLHHNEIIVLTSDGFHNYFELNDLYDKLIVTNQQTNNQILQQLINQAIDNGSNDNLSLAFLIF\*

>UUR10\_RS01085 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L35

MAKIRQKTKRAAAKRFSITKNGKLKRKHAYRSHLALGRSTKAKRHLRKDAIMSTSDTKRYTQCL\*

>UUR10\_RS03145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S18

MAKVINNRNRKPRKKVCILSAKGIEHVDYKDVELLQRFINNNNKIASRRVTGASARMQRRIANAIKRARFVGLLPYVKE\*

>UUR10\_RS00705 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 F0F1 ATP synthase subunit gamma

MSLDAIKRKISSVQTTAKITNAMKLVATAKLKRQRDRLAAIKEYCHDYYDVIGLLLSVVNDIEFLKIPNAKNRTLYITINSTMGLAGSYNYNVNKLVSKIINEDDITFTIGKKGHDFMRLSNRLHQVNTYLNLNDNDLTFDMSLQIAREALELYSNGEVNKICIIYTKFINAITFEVNNIDVLPFDKTVLTKDNLAETIELAKDNIIFQPNKVELVKKILPTYIATVLYGSLIESKISENASRRNAMDAATKNAKALAEDYKLIYNTLRQGKITREITEIVAGSDD\*

>UUR10\_RS01600 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosome-binding factor RbfA

MANEVRVARLESLIKDVINNALANEINDKIAKLARVTAVRLSNDLSVAKIFLDAHKRESMPKVLENVNKVSGLLRSKLAAE\*TSYKVPELRFVIDETIDYANHIDELFKKIKQQEN\*

>UUR10\_RS03155 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S6

MAKYEIMLVVRGDLDQEQANKVANELKATLKNTEVKENNYEGVQQLAYEINKLKTAYRYVYNFETTDVSLINEFRRLAIINKNVLRHIIINLEKDYGYKATVNAKKVQRNEKRAEVYVRQKEEAERRAAERQAAYEAMKAEREAAGLPVKEFVKGANSKR\*

>UUR10\_RS01550 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 tRNA (adenosine(37)-N6)-threonylcarbamoyltransferase complex dimerization subunit type 1 TsaB

MNSLYQLFIDVTSKKCVLAIYKNFKILANIIVETNNNLTDIIVEHIIALLKAVHLKYQDLDAIYLDIGPGSFTGVRVGAIVAKTICTTHNQIKLFINDSLNIIANNKNNVFVHLDAKGNKSYTISIINNIQSDYRIITNEQLQIELKNTSLTIIDANQVDYHNLIYNLKFDNFKLTNILDFDLNYVKKPLS\*

>UUR10\_RS00055 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L7/L12

MSKLTIEQFIAAIKEMSMLELNDLVKAIETEFGVSAAAPVAVAAAPAAAEAPTEVTIKLVEAGANKVGVIKLIREITGLGLMEAKTAAETAGSVIKEDVKTEEANEIKKKFDELGAKVQLV\*

>UUR10\_RS00695 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP synthase F1 subunit epsilon

MANLTKLKIVTPYAQNLEKDVYSVELKTSEGRIAVLPDHNPLMSIIENHVAYIRELPNAPRKPLLLLDGIVYVEEHQVRVFSDYFKFLDEIKIDEINSLLNKLKNDLANEEDDKKKLQLKSKIKLNESILIAYKDR\*

>UUR10\_RS01180 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L18

MKRINFSRAKQRALRAKRLHVKIRNLQLAANKPVLVITKTNAHI\*AQLICYNKNITLASSSSVQLDLQNGNKDNARLVGADIAKKALAQGFKQVIFNKNGAKYHGRIKALADAAREAGLEF\*

>UUR10\_RS01220 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S13

MARILGVDIPNDKRVVISLTYIFGIGKSTSQKILKLANIDENIRVNDLADEQIAEIRRVALNFVKANGEKLQLEGDLRRTVAMDIKRLMEIGSYRGIRHRRGLPVRGQRTKTNARTRKGPRKTVANKKIETR\*

>UUR10\_RS01000 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L21

MFAIFQTGGKQYKVQQGEKIYVEKLDLEVGSKISFDQVIMVEGSVGTPFVKNAVVNATVLKQGKQKKINIIKFKSKKHHLKRQGHRQPYTQLVIDSISVK\*

>UUR10\_RS01160 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L5

MAFLKDLYKNKVAKDLQKEFAYSSVMQIPKIEKVVINAGIGNAVADKKHLEAAISELTLITGQRPVETKAKKSIATFKLRAGQSIGAKVTLRGDRM\*AFIETLFNIALPRVRDFKGISNNSFDDQGNYTLGIKEQIIFPQVVYDDVKSVRGFDVTFVTTAKTAQEAKALLVGLGAPFQKVRGDK\*

>UUR10\_RS01710 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 (d)CMP kinase

MKKYINVAIDGPSGSGKSTAAKGLANKLGFLYINTGLMYRAYAYFLNENNLDINTNETACIEAIKNARFIFNGDDVKIDDQDVSDILRSNDVAMLASVVAANAKIRNLATNEQRKIASENNVVMDGRDIGSIVLVDADLKFYLNTSIQTRAKRRLAQNKDIEKLDYESIYNDIKERDYRDMTRDIAPLKKAIDAIEIFNDNMNLDQCVAHLYEIYLNKIKKS\*

>UUR10\_RS00815 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 NAD(+)/NADH kinase

MKDVKPVYFYDIYCFNPNKCTEDKGVLLLETKLKEYQKVTFLRSEQKPQIVFLLGGDGSFINFVNQQ\*KQN\*KIVGINYGQLGFYSSYDGINTINIDEIVDESMYANAFLIEVNINNENKFYCLNELSIFSNELASCDISINNTFYEKFRGSGLLFATPSGSTGKNKVAHGPIIFNNQPCFSMLEIFPVNHLKYSSLNAPVVFGKDYQISLTNIKFKRTLNLVVDGNNINFNNKIDFIEVKLIQASLQIHGLNNYKKYIERLRRSFIKEE\*

>UUR10\_RS03075 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 energy-coupling factor transporter transmembrane protein EcfT

MSANAYVFRRSPIHRLNPAIKFISFILLIAMIFLPLGFFAQMIIGVFILIIFFVAKLPKKTL\*NVFKSVIMLFVILLLIN\*MTYKDPIAIYNITDQAKVILGDKD\*INGPINKNLSFSLIYNDISSTHVQNLVSNIWGGEIKNYISPEIIKKLIDKPDYNVAKFLSENNITVKKLASTFNALNQDVRLNNYYPIYGDAVLRSGKVEVPLSHLSYYMSTNL\*KIEGVKYQGLILSGVGDQLGKAETALFYTRSPFALSPVAIQLAIYISIKIFLMITLSSILTATTSSIELTNGLEDLLSPFKILRLPVAEASMMISIALRFIPSLLDESKRILNAQASRGVDFNNGGMLQKLKSLISLVVPLFSIAFKKAEDLANAMEARSYNPRYARTRYRAFPLNLTDYVLFGILCILVGFLISLAVIKFYFTPFGAFEASALFAK\*

>UUR10\_RS00025 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 L-threonylcarbamoyladenylate synthase

MKIYRITNLNAIYDALVANKCVLIPTDTIIGLLAKNQDVIYEIKRRDRNKKIVRFVADYKLLGDLTVEQEQFLDLF\*PGSVTVIKNGVSYRMPNSPYILKLIQKLGPLYCSSANISGEEPVKNHNEAIFKFGANSKLIYVEAQQQIGVPSTIVDIDK\*EYVRRGANIEMVDMFIKELKYNNTKEKE\*

>UUR10\_RS01125 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L22

MTNKVIQRNIHISHRKASLVIDLVRNKPVHEAIRILSNTPKKFAPIVLKLLNSAISNVQHNSKDMDPSKLYIYKIVANQGPTMKRTLPRAKGSADQLFKRTTHLEIVLSDDVNEREKELAAIKAKKSKKPLVVEPVAKVETKKVAKPSKVETKPVEKDENVDPELLKREQQVLKVVEKTASQKEEETTETIMISTSPKNAQVLFDDLEKNVIFYKTTPVNKVLRVLVYVTSPTKKVVGEFDLESVEIGAISSI\*RKYNKQSVISKKEYDAYYEGKDKAHALVSKKAYKYRNPKDLSEYNMTKGPSGFQYLK\*

>UUR10\_RS03095 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L11

VAPKKKEVTRIAKLNLIGGQAKPGPALASVGINMAEFTKSFNDKTKDQNGKVIPVIITAYKDKSFDYVVKTTPVTYLLKDAAKIKSGAKDPKKQVVATISKEQALEIARYKLVDMTAYDEEAALRMIAGSAKQMGIAIEGVSAYKEKKGN\*

>UUR10\_RS01135 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L16

MLQPKRTKFRKPHKVSYEGKAKGNKQVDFGEFGLMALEGA\*IDARQIESARIAISKRLLKTGKM\*IRIFPHMSLTKKPLEVRMGSGKGSPEK\*VAVVKAGTVMFEIANVSEELMREALRAAGNKLPIKVKIVKKGEAN\*

>UUR10\_RS01745 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 RNA polymerase sigma factor

MSTKQNEPLFENLEDLKQKVKLSFTEEFSFSYALSEREAGIFESRNLKGADASNPEEILLNVVLDVSKRKRSRNEIKFNKLQNYFIHMNLRDEHFSEIVDVLENIGIRVPDYELVMQSKSKSTAKKKDEYGIDDTLEISTSKIGFSSTTTEKVDDGIKAYLGVLGESKMLRSDEETEYAKMVISNDPALIKIGKNQLYTSNMRLVTSIAKKYLNRGLDLEDLIQEGSSGLLKAIDKFDHEKGHKFSTYAT\*\*IRQSITRAIADQARQIRIPVHMVETINKLTKAERSLIQELGRDPTAEEIAQAMNKASQAKNQKEQLITAQKVVEIKKLNVDPVSLDKQIGHDEESQFSDFISDDEIISPEKYTEKKALNDQINEMFEKVLNDNEQRVIKMRYGLLPFERPYTLEEVGEHLGVTRERARQIESKAIRKLKHPSKTAKLRSFIGESEN\*

>UUR10\_RS00400 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 HPr kinase/phosphorylase

MEIRGKLFVSQVVRKFNLNVVANSDYIDREISTTGITRVGFELAGEILFKEI\*NIVYFGSKESNYFSKFSETIISKKLGKILDLNPPLIIFGKNFKHAGILLKLAERYKIPIVEVKYSFYELNFTINTYISQKLSHQSLVHGTLLSIYGIGVILMGESGVGKSELAIELVKKGHIFVGDDAILVNRIGGNLYGRAEDSTKDFIEIRGLGIMNFSRSFGIERMIESTKIEIVIELIKAAKHEKIKFERFGREIQHKEFLETKIAYYYIPVIEGRSISDIIETAITDYKLKTSGYNSAEEFILQIDKKGN\*

>UUR10\_RS00980 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L28

MARRDQLTGKGPLSGNTRSHAMNHSKRR\*NVNLQKATIKTENGSQRVLVSAKTLKTLKKHNLLA\*

>UUR10\_RS02265 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 bifunctional oligoribonuclease/PAP phosphatase NrnA

MQKDLLNKLIEQTYGFSKISIFVHTNPDCDALGSAFALARILKLNTFGTRVKIVGINTLNPNDFKNFFTFDKNEVEDEFIEGSLAFIVDTANQERVLSQKHTLAKKTILVDHHVKTVSYTDLTYINDQSIATCEMLAYSLMHTNLNFDVKTLNYLLLGLTTDSNRLMYDKVSDITYEIMA\*FFKNNVKHYQIYQQLYERNLDDILFDNELIKTIKTHKQIAYLNIDKS\*NQKYNFTR\*GDKVYLLSNIKNYPI\*FVVYFDETTNTYKVSLRSNKYKVRLVANQFNGGGHDLAAGCSLANIDQLNDLLKALELLIKNQEVVD\*

>UUR10\_RS01540 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S20

MANIVSNEKTYRHTQKVRKENHAKMSKLRTIVKKTRSSNEQAQLNEAYKVIDTTASKGVIHKNKANRLKSRTAKAFKANLQVVA\*

>UUR10\_RS03235 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L19

MALFKINKGEIMNFVNSTQLKTDIPSFDSGDTIIVHNRIVEGKKTRIQKFEGVVLRRRGSGSSETVIVRKESNGVGVEQSFNIHSPLVEKIEVIKYGKVRRAYISYMRNRSGKSARIKELNKQ\*

>UUR10\_RS01860 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 Holliday junction resolvase RuvX

MRKLALDLGTKSCGFAISDLLGIIASGLDNFIYEENDFIAVLAKIDEIMINYHHEIDTIVLGYPTNVYDGSKNKRTYLIESFYTLLKQHFLNHEKIKIVYEDERFSTKIATQRLKNSCVKAAKIKKVKDKMSAVVILESYLSKNHFN\*

>UUR10\_RS02555 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 nicotinate-nucleotide adenylyltransferase

MKIILFCGAFDMVHNAHIAMAKYAIDLIKADKLIFLPSNFKFFKPINKDDNLEYEKTKLTHGHHRLAMLKIATKNLVNTEVSDYELNQVNKSYTINTIDHFKKLYGAEHEYYFIIGSDNLERFKQ\*KD\*ERILKEVKIICFKRSGVCLKKTCFQNQCNCENFNFFEHQIILVNDFNYNISSTEIKKQHNLASGIDPAVLDYINEHGLYAL\*LLEKHLISYDNFNNLEKKIARINHCRRVAQMCVDLMNVYDKKLIDQAYCAGIYHDILKCLDEQESIAYFNEHKSELNIGDDFIS\*RILHSYLGAHLLQTQYGFKNQLILNAIRRHTRPFDFIKDYSELTTLDKILYCADKLEPNRREEIDQINIDYYRKLVFEDLDKAFIEVYKYQQRQRK\*

>UUR10\_RS00395 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 prolipoprotein diacylglyceryl transferase

MQLEIINPESTLINDVVAHRIAFSIGSNFNIY\*YGIIFVCGFLLAILTYSLRLKFHYKVPYDPGFYYIFLAIPMTIIGARL\*SLAIGDAKDFFDFRNGGLAIQGGVIAGVLSAAIYFPLILRMPKYHVRDLDADGNVIIRQPSM\*IYADAIIPTILIGQALGRWGNFINGEIFGAESTVNDLQ\*LKKAMPAVFEGMKHYFIEGDKTLFTIYQPLFLYESFFNVIVFVFIYFGLSYIKQLKIGFVSMSYFFFYGVIRFSTESARAPQFSFAGTYVINSLLLIFGVLGALYVQFIAPILRKRFLLDAIIELFYKKKQQAHKFGQLRNPEEFLYYCHK\*

>UUR10\_RS00840 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 2,3-bisphosphoglycerate-independent phosphoglycerate mutase

MSLNKKLALIIIDGLGIGKKDDTNAVYLANPKTLNYLIKNYPTLEISAAQQPIGLLENQAGNSEIGHLTIGAGRIILNDNANINSYTKRLDYESLVLNDINNEIVHVVGMYSNGLVHSNYEHIH\*IIKELVKNNNQVVLHLISDGRDDYPYGFAQFIEQINALKTQYNVIIKSLSGRYFAMDRDQR\*ERTQKAFNTMFIKQDKICEQSLLEVAQSIANHYESDEFVEPIVFNNDEKYNLKPYQKVILTNYRSDRMRQLAHLLKPNRKFNYHNPFLIKDIHLITLVPFPDVDAITLFEKQNLNNTLGDVLNDHHIKQARVAETEKYGHISFFFDGGINKHYASKTQYLIPSQKVATYDLCPQMSASLITKTIIDHYFDHDVFIVNYANPDMVGHSGNMKQTIQAILSVDSEIQKLYDFFKKNNGVLMITGDHGNAETMIDANGQIITSHSINDV\*FIITDNNIVFDQTQKFSLANIAPTILEYLNIKKPIEMAASSMIKKIHK\*

>UUR10\_RS01110 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L23

MELTRVILHPYTTEKTYSIRNKSEHETLTFIVDKNANKYQIREAFIAIFGLKPLKIRTTNRGPAKIRTSTARPGYTKAKKIAYIVMPIGVKVAVSKEEVEAANAK\*

>UUR10\_RS02255 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit alpha

MFINLNVHSYYSLLNSALSIDDLIQHALDNNQPYVCLTDLNNMYGCIEFYDKAKAHNLIPIIGLEFEYQNTTLVAYAKNYNGYLKLIK\*SS\*IMTNTTFIIQEDFDDLIIVCKKGGLVFENPNFYQAQNQNASNAIALQSVFYAQENDKTVFLAMLAIKNDLKLDDFIDCHEFDKNYFLNDHEAQSLFSTIALDNLNKVLNELQVEIHDLPINIPVYDKNNLTVSSEILKQLCISGLKQRLNAHDGQVKKVYAKRLKYELDVISEKQFDDYFLIVYDFINYAKSNGIIVGPGRGSAAGSLVAYCLYITDIDPIKHNLIFERFLNPTRKSMPDIDTDIMDEKRDQVIEYLFEKYGNDHVAYIVTFQRLKAKMALRDVGRILGIDLKVIDKICKNIKTDYDEDIDLAIKKSATLKEMYVLHKELFEISKKLIHAPRQIGTHAAGIILSNSSITNIIPIQLGINDRPLSQYSMEYLERFGLIKMDLLGLKNLTIIDNVLKMIYKTQNKKIDLFNIDYNDKFVFQDLAKAKTNGIFQLESPGMKKVLLKVKPQNIEDISIVSALFRPGPQQNIKTFVERRFKREEFSY\*NEQTKKILEPTYGIIIYQEQVIELVKTIANFDIATSDNFRRAISKKDEKILMQLKDDFINGALANNYKQPLVNQIFEYIFSFAHYGFNHSHSLAYSYISY\*LAYLKHYYPLEFLSVLLSHTSASKEKLLSYLDETKDFNISIKGPDIQHFSNDFVIDNHKQIIRFGFKTIKGFGDELLKKIKLALENAELSDYISYIDALKKGNISLKNIEILIRIGAFDSFEINRLFLLNNLEEIFEKTGLNGHFFDLNLVGLDYANDMSINERFQEDEIQYLGINLSSLNYTNYTNEIDYSNLKYEIESFNEINTNYEVNIVAQVLNIVQSKTKKGNDIFYLDVLVENKKEKLTIFQNSKHLVDEIDINGIYVFGVKLLNHFNFIVSVKQRV\*

>UUR10\_RS00415 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 DNA polymerase III subunit beta

MEVFVSIKKLIEAMKFSTTIANTNNANALLLGVLIEVNENKITFKTTNNQVSGYKEISDGFEYFSSGKILVTAKILLGLISKLKDKSVLLKQVDTNILLIKTENFETQINTMNIESFPSLNFSLEDYVKISLPHQIMQEINAKVLPNVLNSQGIEKIQPISGVLIDTETLDNQLIAIGTDKIKASCLTKPYLGEKFKFIISYSTMKLIMEVLRNVEYSNNQIVDFYVRNKSLVFKVNDAILQTRMIDGVYPNVYSIFNETNEEKNYVFDRRLLIEIIERGMNIVMQEQNPKISIKIENNEAEISLTTFEIGNMKEKMPIINLSNANVEFIVNPSLLAHVLKNFENNDVNFKVKDEILRPIIFIDAKDLGFKQILSRIKN\*

>UUR10\_RS01145 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S17

MERSRRKVLEGLVVSDKMQKTVVVSVETKSKHPIYRKLVISHKKYHAHNDNDDAKVGDLVEITETRPLSATKN\*RVSKILERAR\*

>UUR10\_RS01090 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L20

MRVKGGSVTRQRRKR\*LEKAEGS\*GTRNTSYRIARQTVIRAAEYAYRDRRNKKRDFRKL\*ISRINAAVRELGYTYSQFMNALVKANVVTKDGQGLNRKMLSELAINNPEAFNQLVNKVMK\*

>UUR10\_RS02750 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 30S ribosomal protein S4

MSRYTGSIYKKSRRLGFSLLENNKEFNSGKKRTYGPGQHGNKKVKLSNYGQQLVEKQKLMFLYGLNDRQFRRLYRVALGRPGVLTLNLLQVLESRLDSLVYRAGFAPTRRAARQLVNHSHVLVNGKKVNIPSALVEVGSTIALKEKSLEMPLIKNTLNKPADFIELVDKDKKVAKLSRLPERSELPADVNEAYVVE\*YNRLM\*

>UUR10\_RS01175 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L6

MSRIGNRKLTIPANVNVSVESGKVHIVSQTAKLSVDFPVNLISVDVVDNTIKVSRANDEKQTKMFHGTVNANIANALVGVTTG\*KKELEVKGVGFRAKVEGSKLNLGLGFSHPLLIQIPTGLKIETPSATEISISGSDKATVGAFAAVVRAYRKPEPYKGKGVMYKGERIVRKAGKTADKKK\*

>UUR10\_RS01525 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 ATP-binding protein

MNNNEIEDELDLENFNYQKALEVPNLKAINLTEDEFNLHF\*DIVGVYRSYLNNLKEPNDSGYIYELNRNEYNHLCLVVIKKESKVDKVKKNYILNTIKNMDYDISLTDDSQIFSKKSEILDNDLLVERNKLINFFLEEARKNKKQSANKEDNITTNDQQLKSAFIYGDFGVGKSIITQAYTNTISLKYNLKIAYITLNELFKNVIQFFNYKDISDSVVNELINELSNIDVLVIDDFSSGNLNY\*SISTILMPIIENRLKSMKQTIFISNFSIEQLNNSTKNIANIEEQKAKLRLFNRIECLTYGNVFKIKGPSIFKVTNNL\*

>UUR10\_RS00720 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 hypothetical protein

MQSNTKLVKYSKIIANRLKAYSNQTRFIEIKTAFELNNEQKQRIKKTIINRFGDERPIKFIVDPSLIGGVSLKINLEIIDSSLKTKLNQIINIKEKEGA\*

>UUR10\_RS00620 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 dihydrofolate reductase

MLKLI\*CQTLNGGISKNNKLP\*YVKEELEHFYKTTKNHKIVMGKSTFDSLEQKPLSNRTNIIFSSIMQTPEDQSYFVTNDFQQLLNDAKKEDIFIIGGKELFDIFLNHADALIVSVLNDYYDCNLYMKVDYNNFNLDKKDVYDNFVVNYYSSKKDK\*

>UUR10\_RS00050 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 50S ribosomal protein L10

MANVRPSVVFKQQEVDHMADILKNSKSFIVFEYHGLTAANILALRNVLHSSNSKLFVLKNNITARAFEKAGVTGFEDRLTGPNAIAVAMDDEIAAIKAVNDVAKEFDFVKIKGAYLENKFADTHKIDQLAAIPGREGLYSMLLSCFTAPLRNVLYGLKAVAEQKGE\*

>UUR10\_RS02455 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 phenylalanine--tRNA ligase subunit beta

MILSLNLLHKISPKLKKISLNELCTALMDLGCEVETINTIKPSTNLVFAKVLEKTKHPNANHLNLVKVKANQEVYEIVCGADNFNVNN\*VVLAKINAELANGLKITPRELRGYVSNGMLCAYSEINPEVAHFLGQTDLDGILVLHDSYDHYKTPNQIFNLDDVILDLSIPSNRNDLNGYF\*MAKELCAYFDLEYVIDATINHRSHKEIVNVRILSDDVNSYGMIEVKNIQNYTLK\*NTKSVLVNNQIKIVNNFADNMNFLTLLTANPLHAFDAHKISGQIIVKNAEEDSILLGLDQKEYAIKKGDLIIVDDQKILALAGIIGSNDSKIDNNTTTAYIECANFNPLLIANTARRLKINTTAAMRFSKPLTNYVTKATLKKLLAHFKLDAKLICYFKHLVHNVIKNKIDQVSDFVGTKINLDTAHTFLKRLGYKINKTNLITPSHRYDVLNEFDVYEDIMKKFSIQQIKPQPINFDILSFKNNIAYDFEKKVSDFLVDQGLFECKTYNLKSQTQAYEIDFFNFQQAYEINNPISNIRSHLKLNNLNSLLEVLEYNQNQKNELENIFEISKINPINSNQQTILSIVLCKPLINAKLNDSIVVNNFVTTKALLHVLLTKLNISYVYDTNHIVNELYENNQLALVNENKQVFGFIGQLKNQIKKTYGLNNDIFVINLNLTSYLNQEQAITKVIKPSVYHDIVRDVSVKLASNVDLNDVMDNIEKIKNIRKVEISDLYVKDDEIIYTFKYYINDYSSNLSSEQIAVIEQEVNNYLKQF\*

>UUR10\_RS03360 Ureaplasma\_urealyticum\_serovar\_10\_str\_ATCC\_33699\_NC\_011374 transketolase

MNRYVNAMRSLALQAINKANQGHSGMSISAAPIIYTLYKGLMTISKSHPK\*FNRDRLVLSAGHGSMALYPVFYFSSLLTLDDIKNFRNDNHLTPGHPEVLSNNYIDASTGPLGQGVANAVGMAITESYLRAEFASLKGVVDHYTYCIVGDGDLQEGISYEAMSIAGKLKLSKLIILHDSNDYQLDSAVSDVNIEDLKMRVESMG\*NYLKTDNNPENIFKAIAEAK\*KKNVKPTFIEVKTIIGEGTSFENSNEAHAAAISKEELEKFGKRFHTKTNNFEFHQEIFDHFFFNVVARGESAYNQ\*QQLVDQYMQTNPEQMQRLLNYINGNYEDLNKMLDENKIVNLSDSTRSYLKQYFAQLKDLKSALVLSADLAKSTFTKIGENAFNDDYKNPYIKFGIREFAMAGAMNGISLHQGAKAIGGTFLAFSDYMKPAIRLTAISNLANLFIFSHDSYAVGGDGPTHQPVDQLPMLRAIPNVEVIRPADHYEVKHALSYSFKQKQKPICLVTSRQAIKQINEQKPQDFTKGAYIINSPFSFSENPDYTIIASGSEVSLANDAAKEIFEKHQLKVKVISAFNLNLFLQQKPEVIKNLVSSKNGLLAIEASSEML\*\*KLSVYTNKFMQIAANQFGRSADGNKLMHEFGFSVENIINQLLNKK\*

**Supplementary Sequence file 4 Anti-target protein sequences in *Homo sapiens* (refer to Fatoba et al., 2021)**

>CAA41558.1 P-glycoprotein [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNKR

>CAA29547.1 P-glycoprotein (431 AA), partial [Homo sapiens]

LTLLLLAVVPIIAVSGIVEMKLLAGNAKRDKKELEAAGKIATEAIENIRTVVSLTQERKFESMYVEKLYGPYRNSVQKAHIYGITFSISQAFMYFSYAGCFRFGAYLIVNGHMRFRDVILVFSAIVFGAVALGHASSFAPDYAKAKLSAAHLFMLFERQPLIDSYSEEGLKPDKFEGNITFNEVVFNYPTRANVPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGTVFVDFGFQLLDGQEAKKLNVQWLRAQLGIVSQEPILFDCSIAENIAYGDNSRVVSQDEIVSAAKAANIHPFIETLPHKYETRVGDKGTQLSGGQKQRIAIARALIRQPQILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTQNL

>CAA41416.1 70kDa peroxisomal membrane protein [Homo sapiens]

MAAFSKYLTARNSSLAGAAFLLLCLLHKRRRALGLHGKKSGKPPLQNNEKEGKKERAVVDKVFFSRLIQILKIMVPRTFCKETGYLVLIAVMLVSRTYCDVWMIQNGTLIESGIIGRSRKDFKRYLLNFIAAMPLISLVNNFLKYGLNELKLCFRVRLTKYLYEEYLQAFTYYKKGNLDNRIANPDQLLTQDVEKFCNSVVDLYSNLSKPFLDIVLYIFKLTSAIGAQGPASMMAYLVVSGLFLTRLRRPIGKMTITEQKYEGEYRYVNSRLITNSEEIAFYNGNKREKQTVHSVFRKLVEHLHNFILFRFSMGFIDSIIAKYLATVVGYLVVSRPFLDLSHPRHLKSTHSELLEDYYQSGRMLLRMSQALGRIVLAGREMTRLAGFTARITELMQVLKDLNHGKYERTMVSQQEKGIEGVQVIPLIPGAGEIIIADNIIKFDHVPLATPNGDVLIRDLNFEVRSGANVLICGPNGCGKSSLFRVLGELWPLFGGRLTKPERRKLFYVPQRPYMTLGTLRDQVIYPDGREDQKRKGISDLVQKEYLDNVQLGHILEREGGWDSVQDWMDVLSGGEKQRMAMARLFYHKPQFAILDECTSAVSVDVEGYIYSHCRKVGITLFTVSHRKSLWKHHEYYLHMDGRGNYEFKQITEDTVEFGS

>sp|P15382.1|KCNE1\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily E member 1; AltName: Full=Delayed rectifier potassium channel subunit IsK; AltName: Full=IKs producing slow voltage-gated potassium channel subunit beta Mink; AltName: Full=Minimal potassium channel

MILSNTTAVTPFLTKLWQETVQQGGNMSGLARRSPRSSDGKLEALYVLMVLGFFGFFTLGIMLSYIRSKKLEHSNDPFNVYIESDAWQEKDKAYVQARVLESYRSCYVVENHLAIEQPNTHLPETKPSP

>sp|P20813.1|CP2B6\_HUMAN RecName: Full=Cytochrome P450 2B6; AltName: Full=1,4-cineole 2-exo-monooxygenase; AltName: Full=CYPIIB6; AltName: Full=Cytochrome P450 IIB1

MELSVLLFLALLTGLLLLLVQRHPNTHDRLPPGPRPLPLLGNLLQMDRRGLLKSFLRFREKYGDVFTVHLGPRPVVMLCGVEAIREALVDKAEAFSGRGKIAMVDPFFRGYGVIFANGNRWKVLRRFSVTTMRDFGMGKRSVEERIQEEAQCLIEELRKSKGALMDPTFLFQSITANIICSIVFGKRFHYQDQEFLKMLNLFYQTFSLISSVFGQLFELFSGFLKYFPGAHRQVYKNLQEINAYIGHSVEKHRETLDPSAPKDLIDTYLLHMEKEKSNAHSEFSHQNLNLNTLSLFFAGTETTSTTLRYGFLLMLKYPHVAERVYREIEQVIGPHRPPELHDRAKMPYTEAVIYEIQRFSDLLPMGVPHIVTQHTSFRGYIIPKDTEVFLILSTALHDPHYFEKPDAFNPDHFLDANGALKKTEAFIPFSLGKRICLGEGIARAELFLFFTTILQNFSMASPVAPEDIDLTPQECGVGKIPPTYQIRFLPR

>sp|P09211.2|GSTP1\_HUMAN RecName: Full=Glutathione S-transferase P; AltName: Full=GST class-pi; AltName: Full=GSTP1-1

MPPYTVVYFPVRGRCAALRMLLADQGQSWKEEVVTVETWQEGSLKASCLYGQLPKFQDGDLTLYQSNTILRHLGRTLGLYGKDQQEAALVDMVNDGVEDLRCKYISLIYTNYEAGKDDYVKALPGQLKPFETLLSQNQGGKTFIVGDQISFADYNLLDLLLIHEVLAPGCLDAFPLLSAYVGRLSARPKLKAFLASPEYVNLPINGNGKQ

>AAA35496.1 alpha-1A-adrenergic receptor [Homo sapiens]

MAAALRSVMMAGYLSEWRTPTYRSTEMVQRLRMEAVQHSTSTAAVGGLVVSAQGVGVGVFLAAFILMAVAGNLLVILSVACNRHLQTVTNYFIVNLAVADLLLSATVLPFSATMEVLGFWAFGRAFCDVWAAVDVLCCTASILSLCTISVDRYVGVRHSLKYPAIMTERKAAAILALLWVVALVVSVGPLLGWKEPVPPDERFCGITEEAGYAVFSSVCSFYLPMAVIVVMYCRVYVVARSTTRSLEAGVKRERGKASEVVLRIHCRGAATGADGAHGMRSAKGHTFRSSLSVRLLKFSREKKAAKTLAIVVGVFVLCWFPFFFVLPLGSLFPQLKPSEGVFKVIFWLGYFNSCVNPLIYPCSSREFKRAFLRLLRCQCRRRRRRRPLWRVYGHHWRASTSGLRQDCAPSSGDAPPGAPLALTALPDPDPEPPGTPEMQAPVASRRSHPAPSASGGCWGRSGDPRPSCAPKSPACRTRSPPGARSAQRQRAPSAQRWRLCP

>AAA59575.1 P-glycoprotein [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEVIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQAQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAIENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCSIAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTKRQ

>AAA36207.1 P-glycoprotein [Homo sapiens]

MDLEAAKNGTAWRPTSAEGDFELGISSKQKRKKTKTVKMIGVLTLFRYSDWQDKLFMSLGTIMAIAHGSGLPLMMIVFGEMTDKFVDTAGNFSFPVNFSLSLLNPGKILEEEMTRYAYYYSGLGAGVLVAAYIQVSFWTLAAGRQIRKIRQKFFHAILRQEIGWFDINDTTELNTRLTDDISKISEGIGDKVGMFFQAVATFFAGFIVGFIRGWKLTLVIMAISPILGLSAAVWAKILSAFSDKELAAYAKAGAVAEEALGAIRTVIAFGGQNKELERYQKHLENAKEIGIKKAISANISMGIAFLLIYASYALAFWYGSTLVISKEYTIGNAMTVFFSILIGAFSVGQAAPCIDAFANARGAAYVIFDIIDNNPKIDSFSERGHKPDSIKGNLEFNDVHFSYPSRANVKILKGLNLKVQSGQTVALVGSSGCGKSTTVQLIQRLYDPDEGTINIDGQDIRNFNVNYLREIIGVVSQEPVLFSTTIAENICYGRGNVTMDEIKKAVKEANAYEFIMKLPQKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAEVQAALDKAREGRTTIVIAHRLSTVRNADVIAGFEDGVIVEQGSHSELMKKEGVYFKLVNMQTSGSQIQSEEFELNDEKAATRMAPNGWKSRLFRHSTQKNLKNSQMCQKSLDVETDGLEANVPPVSFLKVLKLNKTEWPYFVVGTVCAIANGGLQPAFSVIFSEIIAIFGPGDDAVKQQKCNIFSLIFLFLGIISFFTFFLQGFTFGKAGEILTRRLRSMAFKAMLRQDMSWFDDHKNSTGALSTRLATDAAQVQGATGTRLALIAQNIANLGTGIIISFIYGWQLTLLLLAVVPIIAVSGIVEMKLLAGNAKRDKKELEAAGKIATEAIENIRTVVSLTQERKFESMYVEKLYGPYRNSVQKAHIYGITFSISQAFMYFSYAGCFRFGAYLIVNGHMRFRDVILVFSAIVFGAVALGHASSFAPDYAKAKLSAAHLFMLFERQPLIDSYSEEGLKPDKFEGNITFNEVVFNYPTRANVPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGTVLLDGQEAKKLNVQWLRAQLGIVSQEPILFDCSIAENIAYGDNSRVVSQDEIVSAAKAANIHPFIETLPHKYETRVGDKGTQLSGGQKQRIAIARALIRQPQILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTQNL

>AAA59576.1 P glycoprotein, partial [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQAQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAIENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCSIAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTKRQ

>AAB26819.1 D2 dopamine receptor [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATRLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>AAB31164.1 alpha adrenergic receptor subtype alpha 1b [human, heart, Peptide, 516 aa]

MNPDLDTGHNTSAPAHWGELKNANFTGPNQTSSNSTLPQLDITRAISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAMADLLLSFTVLPFSAALEVLGYWVLGRIFCDIWAAVDVLCCTASILSLCAISIDRYIGVRYSLQYPTLVTRRKAILALLSVWVLSTVISIGPLLGWKEPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMSNSKELTLRIHSKNFHEDTLSSTKAKGHNPRSSIAVKLFKFSREKKAAKTLGIVVGMFILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPCSSKEFKRAFVRILGCQCRGRRRRRRRRRLGCAYTYRPWTRGGSLERSQSRKDSLDDSGSCLSGSQRTLPSASPSPGYLGRGAPPPVELCAFPEWKAPGALLSLPAPEPPGRRGRHDSGPLFTFKLLTEPESPGTDGGASNGGCEPRHVANGQPGFKSNMPLAPGQF

>AAB31165.1 alpha adrenergic receptor subtype alpha 1c [human, heart, Peptide, 466 aa]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFCNVLRIQCLRRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARVRSKSFLQVCCCVGPSTPSLDKNHQVPTIKVHTISLSENGEEV

>AAA52328.1 dopamine D2 receptor, partial [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNA

>AAA88023.1 unknown protein [Homo sapiens]

MRRELEASSSRRRLCPRGPMA

>CAA84542.1 MDR3 P-glycoprotein, partial [Homo sapiens]

MDLEAAKNGTAWRPTSAEGDFELGISSKQKRKKTKTVKMIGVLTLFRYSDWQDKLFMSLGTRGSSRVDLQAC

>prf||2111304A P glycoprotein

ENKKSIEKLKDVISMNASEFSEVQIALNEAKLSEEKVKSECHRVQEENARLKKKKEQLQQEIEDWSKLHAELSEQIKSFEKSQKDLEVALTHKDDNINALTNCITQLNLLECESESEGQNKGGNDSDELANGEVGG

>sp|P25100.2|ADA1D\_HUMAN RecName: Full=Alpha-1D adrenergic receptor; AltName: Full=Alpha-1A adrenergic receptor; AltName: Full=Alpha-1D adrenoreceptor; Short=Alpha-1D adrenoceptor; AltName: Full=Alpha-adrenergic receptor 1a

MTFRDLLSVSFEGPRPDSSAGGSSAGGGGGSAGGAAPSEGPAVGGVPGGAGGGGGVVGAGSGEDNRSSAGEPGSAGAGGDVNGTAAVGGLVVSAQGVGVGVFLAAFILMAVAGNLLVILSVACNRHLQTVTNYFIVNLAVADLLLSATVLPFSATMEVLGFWAFGRAFCDVWAAVDVLCCTASILSLCTISVDRYVGVRHSLKYPAIMTERKAAAILALLWVVALVVSVGPLLGWKEPVPPDERFCGITEEAGYAVFSSVCSFYLPMAVIVVMYCRVYVVARSTTRSLEAGVKRERGKASEVVLRIHCRGAATGADGAHGMRSAKGHTFRSSLSVRLLKFSREKKAAKTLAIVVGVFVLCWFPFFFVLPLGSLFPQLKPSEGVFKVIFWLGYFNSCVNPLIYPCSSREFKRAFLRLLRCQCRRRRRRRPLWRVYGHHWRASTSGLRQDCAPSSGDAPPGAPLALTALPDPDPEPPGTPEMQAPVASRRKPPSAFREWRLLGPFRRPTTQLRAKVSSLSHKIRAGGAQRAEAACAQRSEVEAVSLGVPHEVAEGATCQAYELADYSNLRETDI

>sp|P35348.2|ADA1A\_HUMAN RecName: Full=Alpha-1A adrenergic receptor; AltName: Full=Alpha-1A adrenoreceptor; Short=Alpha-1A adrenoceptor; AltName: Full=Alpha-1C adrenergic receptor; AltName: Full=Alpha-adrenergic receptor 1c

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARVRSKSFLQVCCCVGPSTPSLDKNHQVPTIKVHTISLSENGEEV

>sp|P21917.2|DRD4\_HUMAN RecName: Full=D(4) dopamine receptor; AltName: Full=D(2C) dopamine receptor; AltName: Full=Dopamine D4 receptor

MGNRSTADADGLLAGRGPAAGASAGASAGLAGQGAAALVGGVLLIGAVLAGNSLVCVSVATERALQTPTNSFIVSLAAADLLLALLVLPLFVYSEVQGGAWLLSPRLCDALMAMDVMLCTASIFNLCAISVDRFVAVAVPLRYNRQGGSRRQLLLIGATWLLSAAVAAPVLCGLNDVRGRDPAVCRLEDRDYVVYSSVCSFFLPCPLMLLLYWATFRGLQRWEVARRAKLHGRAPRRPSGPGPPSPTPPAPRLPQDPCGPDCAPPAPGLPRGPCGPDCAPAAPGLPPDPCGPDCAPPAPGLPQDPCGPDCAPPAPGLPRGPCGPDCAPPAPGLPQDPCGPDCAPPAPGLPPDPCGSNCAPPDAVRAAALPPQTPPQTRRRRRAKITGRERKAMRVLPVVVGAFLLCWTPFFVVHITQALCPACSVPPRLVSAVTWLGYVNSALNPVIYTVFNAEFRNVFRKALRACC

>AAB69423.1 P-glycoprotein [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQAQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAIENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCSIAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTKRQ

>AAB70218.1 P-glycoprotein, partial [Homo sapiens]

VFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDN

>sp|P08183.2|MDR1\_HUMAN RecName: Full=Multidrug resistance protein 1; AltName: Full=ATP-binding cassette sub-family B member 1; AltName: Full=P-glycoprotein 1; AltName: CD\_antigen=CD243

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQAQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAIENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCSIAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTKRQ

>CAA84543.1 multidrug resistance protein 3, partial [Homo sapiens]

MDLEAAKNGTAWRPTSAEGDFELGISR

>AAC06138.1 alpha 1A adrenergic receptor isoform 4 [Homo sapiens]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARRGMDCRYFTKNCREHIKHVNFMMPPWRKGLEC

>CAA07081.1 m1 muscarinic acetylcholine receptor protein, partial [Homo sapiens]

MNTSAPPAVSP

>CAA09232.1 ether-a-go-go-related protein, partial [Homo sapiens]

RKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVGSPAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSGGAGGAGAPGAVVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGKNDIFGEPLNLYARPGKSNGDVRALTYCDLHKIHRDDLLEVLDMYPEFSDHFWSSLEITFNLRDTNMIPGSPGSTELEGGFSRQRKRKLSFRRRTDKDTEQPGEVSALGPGRAGAGPSSRGRPGGPWGESPSSGPSSPESSEDEGPGRSSSPLRLVPFSSPRPPGEPPGGEPLMEDCEKSSDTCNPLSGAFSGVSNIFSFWGDSRGRQYQELPRCPAPTPSLLNIPLSSPGRRPRGDVESRLDALQRQLNRLETRLSADMATVLQLLQRQMTLVPPAYSAVTTPGPGPTSTSPLLPVSPLPTLTLDSLSQFPSSWRVRSCPRGPQSFPKKAPHDASPYRASWGPSPPSPCTDTARTRAV

>AAC69709.1 HERG-USO, partial [Homo sapiens]

VVAILGMGWGAGTGLEMPSAASRGASLLNMQSLGLWTWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGSHILLPFRIRHKQTLFASLK

>AAC78779.1 dopamine D2 receptor [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKXRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>sp|Q14524.1|SCN5A\_HUMAN RecName: Full=Sodium channel protein type 5 subunit alpha; AltName: Full=Sodium channel protein type V subunit alpha; AltName: Full=Voltage-gated sodium channel subunit alpha Nav1.5; AltName: Full=Sodium channel protein cardiac muscle subunit alpha; AltName: Full=HH1

MANFLLPRGTSSFRRFTRESLAAIEKRMAEKQARGSTTLQESREGLPEEEAPRPQLDLQASKKLPDLYGNPPQELIGEPLEDLDPFYSTQKTFIVLNKGKTIFRFSATNALYVLSPFHPVRRAAVKILVHSLFNMLIMCTILTNCVFMAQHDPPPWTKYVEYTFTAIYTFESLVKILARAFCLHAFTFLRDPWNWLDFSVIIMAYTTEFVDLGNVSALRTFRVLRALKTISVISGLKTIVGALIQSVKKLADVMVLTVFCLSVFALIGLQLFMGNLRHKCVRNFTALNGTNGSVEADGLVWESLDLYLSDPENYLLKNGTSDVLLCGNSSDAGTCPEGYRCLKAGENPDHGYTSFDSFAWAFLALFRLMTQDCWERLYQQTLRSAGKIYMIFFMLVIFLGSFYLVNLILAVVAMAYEEQNQATIAETEEKEKRFQEAMEMLKKEHEALTIRGVDTVSRSSLEMSPLAPVNSHERRSKRRKRMSSGTEECGEDRLPKSDSEDGPRAMNHLSLTRGLSRTSMKPRSSRGSIFTFRRRDLGSEADFADDENSTARESESHHTSLLVPWPLRRTSAQGQPSPGTSAPGHALHGKKNSTVDCNGVVSLLGAGDPEATSPGSHLLRPVMLEHPPDTTTPSEEPGGPQMLTSQAPCVDGFEEPGARQRALSAVSVLTSALEELEESRHKCPPCWNRLAQRYLIWECCPLWMSIKQGVKLVVMDPFTDLTITMCIVLNTLFMALEHYNMTSEFEEMLQVGNLVFTGIFTAEMTFKIIALDPYYYFQQGWNIFDSIIVILSLMELGLSRMSNLSVLRSFRLLRVFKLAKSWPTLNTLIKIIGNSVGALGNLTLVLAIIVFIFAVVGMQLFGKNYSELRDSDSGLLPRWHMMDFFHAFLIIFRILCGEWIETMWDCMEVSGQSLCLLVFLLVMVIGNLVVLNLFLALLLSSFSADNLTAPDEDREMNNLQLALARIQRGLRFVKRTTWDFCCGLLRHRPQKPAALAAQGQLPSCIATPYSPPPPETEKVPPTRKETQFEEGEQPGQGTPGDPEPVCVPIAVAESDTDDQEEDEENSLGTEEESSKQQESQPVSGWPRGPPDSRTWSQVSATASSEAEASASQADWRQQWKAEPQAPGCGETPEDSCSEGSTADMTNTAELLEQIPDLGQDVKDPEDCFTEGCVRRCPCCAVDTTQAPGKVWWRLRKTCYHIVEHSWFETFIIFMILLSSGALAFEDIYLEERKTIKVLLEYADKMFTYVFVLEMLLKWVAYGFKKYFTNAWCWLDFLIVDVSLVSLVANTLGFAEMGPIKSLRTLRALRPLRALSRFEGMRVVVNALVGAIPSIMNVLLVCLIFWLIFSIMGVNLFAGKFGRCINQTEGDLPLNYTIVNNKSQCESLNLTGELYWTKVKVNFDNVGAGYLALLQVATFKGWMDIMYAAVDSRGYEEQPQWEYNLYMYIYFVIFIIFGSFFTLNLFIGVIIDNFNQQKKKLGGQDIFMTEEQKKYYNAMKKLGSKKPQKPIPRPLNKYQGFIFDIVTKQAFDVTIMFLICLNMVTMMVETDDQSPEKINILAKINLLFVAIFTGECIVKLAALRHYYFTNSWNIFDFVVVILSIVGTVLSDIIQKYFFSPTLFRVIRLARIGRILRLIRGAKGIRTLLFALMMSLPALFNIGLLLFLVMFIYSIFGMANFAYVKWEAGIDDMFNFQTFANSMLCLFQITTSAGWDGLLSPILNTGPPYCDPTLPNSNGSRGDCGSPAVGILFFTTYIIISFLIVVNMYIAIILENFSVATEESTEPLSEDDFDMFYEIWEKFDPEATQFIEYSVLSDFADALSEPLRIAKPNQISLINMDLPMVSGDRIHCMDILFAFTKRVLGESGEMDALKIQMEEKFMAANPSKISYEPITTTLRRKHEEVSAMVIQRAFRRHLLQRSLKHASFLFRQQAGSGLSEEDAPEREGLIAYVMSENFSRPLGPPSSSSISSTSFPPSYDSVTRATSDNLQVRGSDYSHSEDLADFPPSPDRDRESIV

>BAA37096.1 HERG [Homo sapiens]

MPVRRGHVAPQNTFLDTIIRKFEGQSRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVGSPAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSGGAGGAGAPGAVVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGKNDIFGEPLNLYARPGKSNGDVRALTYCDLHKIHRDDLLEVLDMYPEFSDHFWSSLEITFNLRDTNMIPGSPGSTELEGGFSRQRKRKLSFRRRTDKDTEQPGEVSALGPGRAGAGPSSRGRPGGPWGESPSSGPSSPESSEDEGPGRSSSPLRLVPFSSPRPPGEPPGGEPLMEDCEKSSDTCNPLSGAFSGVSNIFSFWGDSRGRQYQELPRCPAPTPSLLNIPLSSPGRRPRGDVESRLDALQRQLNRLETRLSADMATVLQLLQRQMTLVPPAYSAVTTPGPGPTSTSPLLPVSPLPTLTLDSLSQVSQFMACEELPPGAPELPQEGPTRRLSLPGQLGALTSQPLHRHGSDPGS

>CAB37869.1 dopamine receptor D2, partial [Homo sapiens]

QNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVL

>NP\_000670.1 alpha-1B adrenergic receptor [Homo sapiens]

MNPDLDTGHNTSAPAHWGELKNANFTGPNQTSSNSTLPQLDITRAISVGLVLGAFILFAIVGNILVILSVACNRHLRTPTNYFIVNLAMADLLLSFTVLPFSAALEVLGYWVLGRIFCDIWAAVDVLCCTASILSLCAISIDRYIGVRYSLQYPTLVTRRKAILALLSVWVLSTVISIGPLLGWKEPAPNDDKECGVTEEPFYALFSSLGSFYIPLAVILVMYCRVYIVAKRTTKNLEAGVMKEMSNSKELTLRIHSKNFHEDTLSSTKAKGHNPRSSIAVKLFKFSREKKAAKTLGIVVGMFILCWLPFFIALPLGSLFSTLKPPDAVFKVVFWLGYFNSCLNPIIYPCSSKEFKRAFVRILGCQCRGRGRRRRRRRRRLGGCAYTYRPWTRGGSLERSQSRKDSLDDSGSCLSGSQRTLPSASPSPGYLGRGAPPPVELCAFPEWKAPGALLSLPAPEPPGRRGRHDSGPLFTFKLLTEPESPGTDGGASNGGCEAAADVANGQPGFKSNMPLAPGQF

>NP\_001901.1 cathepsin E isoform a preproprotein [Homo sapiens]

MKTLLLLLLVLLELGEAQGSLHRVPLRRHPSLKKKLRARSQLSEFWKSHNLDMIQFTESCSMDQSAKEPLINYLDMEYFGTISIGSPPQNFTVIFDTGSSNLWVPSVYCTSPACKTHSRFQPSQSSTYSQPGQSFSIQYGTGSLSGIIGADQVSVEGLTVVGQQFGESVTEPGQTFVDAEFDGILGLGYPSLAVGGVTPVFDNMMAQNLVDLPMFSVYMSSNPEGGAGSELIFGGYDHSHFSGSLNWVPVTKQAYWQIALDNIQVGGTVMFCSEGCQAIVDTGTSLITGPSDKIKQLQNAIGAAPVDGEYAVECANLNVMPDVTFTINGVPYTLSPTAYTLLDFVDGMQFCSSGFQGLDIHPPAGPLWILGDVFIRQFYSVFDRGNNRVGLAPAVP

>NP\_000785.1 D(1A) dopamine receptor [Homo sapiens]

MRTLNTSAMDGTGLVVERDFSVRILTACFLSLLILSTLLGNTLVCAAVIRFRHLRSKVTNFFVISLAVSDLLVAVLVMPWKAVAEIAGFWPFGSFCNIWVAFDIMCSTASILNLCVISVDRYWAISSPFRYERKMTPKAAFILISVAWTLSVLISFIPVQLSWHKAKPTSPSDGNATSLAETIDNCDSSLSRTYAISSSVISFYIPVAIMIVTYTRIYRIAQKQIRRIAALERAAVHAKNCQTTTGNGKPVECSQPESSFKMSFKRETKVLKTLSVIMGVFVCCWLPFFILNCILPFCGSGETQPFCIDSNTFDVFVWFGWANSSLNPIIYAFNADFRKAFSTLLGCYRLCPATNNAIETVSINNNGAAMFSSHHEPRGSISKECNLVYLIPHAVGSSEDLKKEEAAGIARPLEKLSPALSVILDYDTDVSLEKIQPITQNGQHPT

>NP\_000805.1 gamma-aminobutyric acid receptor subunit beta-3 isoform 1 precursor [Homo sapiens]

MWGLAGGRLFGIFSAPVLVAVVCCAQSVNDPGNMSFVKETVDKLLKGYDIRLRPDFGGPPVCVGMNIDIASIDMVSEVNMDYTLTMYFQQYWRDKRLAYSGIPLNLTLDNRVADQLWVPDTYFLNDKKSFVHGVTVKNRMIRLHPDGTVLYGLRITTTAACMMDLRRYPLDEQNCTLEIESYGYTTDDIEFYWRGGDKAVTGVERIELPQFSIVEHRLVSRNVVFATGAYPRLSLSFRLKRNIGYFILQTYMPSILITILSWVSFWINYDASAARVALGITTVLTMTTINTHLRETLPKIPYVKAIDMYLMGCFVFVFLALLEYAFVNYIFFGRGPQRQKKLAEKTAKAKNDRSKSESNRVDAHGNILLTSLEVHNEMNEVSGGIGDTRNSAISFDNSGIQYRKQSMPREGHGRFLGDRSLPHKKTHLRRRSSQLKIKIPDLTDVNAIDRWSRIVFPFTFSLFNLVYWLYYVN

>NP\_002061.1 guanine nucleotide-binding protein G(i) subunit alpha-2 isoform 1 [Homo sapiens]

MGCTVSAEDKAAAERSKMIDKNLREDGEKAAREVKLLLLGAGESGKSTIVKQMKIIHEDGYSEEECRQYRAVVYSNTIQSIMAIVKAMGNLQIDFADPSRADDARQLFALSCTAEEQGVLPDDLSGVIRRLWADHGVQACFGRSREYQLNDSAAYYLNDLERIAQSDYIPTQQDVLRTRVKTTGIVETHFTFKDLHFKMFDVGGQRSERKKWIHCFEGVTAIIFCVALSAYDLVLAEDEEMNRMHESMKLFDSICNNKWFTDTSIILFLNKKDLFEEKITHSPLTICFPEYTGANKYDEAASYIQSKFEDLNKRKDTKEIYTHFTCATDTKNVQFVFDAVTDVIIKNNLKDCGLF

>NP\_002788.1 proteasome subunit beta type-5 isoform 1 [Homo sapiens]

MALASVLERPLPVNQRGFFGLGGRADLLDLGPGSLSDGLSLAAPGWGVPEEPGIEMLHGTTTLAFKFRHGVIVAADSRATAGAYIASQTVKKVIEINPYLLGTMAGGAADCSFWERLLARQCRIYELRNKERISVAAASKLLANMVYQYKGMGLSMGTMICGWDKRGPGLYYVDSEGNRISGATFSVGSGSVYAYGVMDRGYSYDLEVEQAYDLARRAIYQATYRDAYSGGAVNLYHVREDGWIRVSSDNVADLHEKYSGSTP

>NP\_003295.1 short transient receptor potential channel 1 isoform 2 [Homo sapiens]

MMAALYPSTDLSGASSSSLPSSPSSSSPNEVMALKDVREVKEENTLNEKLFLLACDKGDYYMVKKILEENSSGDLNINCVDVLGRNAVTITIENENLDILQLLLDYGCQKLMERIQNPEYSTTMDVAPVILAAHRNNYEILTMLLKQDVSLPKPHAVGCECTLCSAKNKKDSLRHSRFRLDIYRCLASPALIMLTEEDPILRAFELSADLKELSLVEVEFRNDYEELARQCKMFAKDLLAQARNSRELEVILNHTSSDEPLDKRGLLEERMNLSRLKLAIKYNQKEFVSQSNCQQFLNTVWFGQMSGYRRKPTCKKIMTVLTVGIFWPVLSLCYLIAPKSQFGRIIHTPFMKFIIHGASYFTFLLLLNLYSLVYNEDKKNTMGPALERIDYLLILWIIGMIWSDIKRLWYEGLEDFLEESRNQLSFVMNSLYLATFALKVVAHNKFHDFADRKDWDAFHPTLVAEGLFAFANVLSYLRLFFMYTTSSILGPLQISMGQMLQDFGKFLGMFLLVLFSFTIGLTQLYDKGYTSKEQKDCVGIFCEQQSNDTFHSFIGTCFALFWYIFSLAHVAIFVTRFSYGEELQSFVGAVIVGTYNVVVVIVLTKLLVAMLHKSFQLIANHEDKEWKFARAKLWLSYFDDKCTLPPPFNIIPSPKTICYMISSLSKWICSHTSKGKVKRQNSLKEWRNLKQKRDENYQKVMCCLVHRYLTSMRQKMQSTDQATVENLNELRQDLSKFRNEIRDLLGFRTSKYAMFYPRN

>NP\_003349.1 ceramide glucosyltransferase [Homo sapiens]

MALLDLALEGMAVFGFVLFLVLWLMHFMAIIYTRLHLNKKATDKQPYSKLPGVSLLKPLKGVDPNLINNLETFFELDYPKYEVLLCVQDHDDPAIDVCKKLLGKYPNVDARLFIGGKKVGINPKINNLMPGYEVAKYDLIWICDSGIRVIPDTLTDMVNQMTEKVGLVHGLPYVADRQGFAATLEQVYFGTSHPRYYISANVTGFKCVTGMSCLMRKDVLDQAGGLIAFAQYIAEDYFMAKAIADRGWRFAMSTQVAMQNSGSYSISQFQSRMIRWTKLRINMLPATIICEPISECFVASLIIGWAAHHVFRWDIMVFFMCHCLAWFIFDYIQLRGVQGGTLCFSKLDYAVAWFIRESMTIYIFLSALWDPTISWRTGRYRLRCGGTAEEILDV

>NP\_000605.1 ciliary neurotrophic factor [Homo sapiens]

MAFTEHSPLTPHRRDLCSRSIWLARKIRSDLTALTESYVKHQGLNKNINLDSADGMPVASTDQWSELTEAERLQENLQAYRTFHVLLARLLEDQQVHFTPTEGDFHQAIHTLLLQVAAFAYQIEELMILLEYKIPRNEADGMPINVGDGGLFEKKLWGLKVLQELSQWTVRSIHDLRFISSHQTGIPARGSHYIANNKKM

>NP\_005113.1 nuclear receptor subfamily 1 group I member 3 isoform 3 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_005463.1 potassium voltage-gated channel subfamily E member 3 [Homo sapiens]

METTNGTETWYESLHAVLKALNATLHSNLLCRPGPGLGPDNQTEERRASLPGRDDNSYMYILFVMFLFAVTVGSLILGYTRSRKVDKRSDPYHVYIKNRVSMI

>NP\_005391.1 protein kinase C epsilon type [Homo sapiens]

MVVFNGLLKIKICEAVSLKPTAWSLRHAVGPRPQTFLLDPYIALNVDDSRIGQTATKQKTNSPAWHDEFVTDVCNGRKIELAVFHDAPIGYDDFVANCTIQFEELLQNGSRHFEDWIDLEPEGRVYVIIDLSGSSGEAPKDNEERVFRERMRPRKRQGAVRRRVHQVNGHKFMATYLRQPTYCSHCRDFIWGVIGKQGYQCQVCTCVVHKRCHELIITKCAGLKKQETPDQVGSQRFSVNMPHKFGIHNYKVPTFCDHCGSLLWGLLRQGLQCKVCKMNVHRRCETNVAPNCGVDARGIAKVLADLGVTPDKITNSGQRRKKLIAGAESPQPASGSSPSEEDRSKSAPTSPCDQEIKELENNIRKALSFDNRGEEHRAASSPDGQLMSPGENGEVRQGQAKRLGLDEFNFIKVLGKGSFGKVMLAELKGKDEVYAVKVLKKDVILQDDDVDCTMTEKRILALARKHPYLTQLYCCFQTKDRLFFVMEYVNGGDLMFQIQRSRKFDEPRSRFYAAEVTSALMFLHQHGVIYRDLKLDNILLDAEGHCKLADFGMCKEGILNGVTTTTFCGTPDYIAPEILQELEYGPSVDWWALGVLMYEMMAGQPPFEADNEDDLFESILHDDVLYPVWLSKEAVSILKAFMTKNPHKRLGCVASQNGEDAIKQHPFFKEIDWVLLEQKKIKPPFKPRIKTKRDVNNFDQDFTREEPVLTLVDEAIVKQINQEEFKGFSYFGEDLMP

>NP\_006570.1 3-beta-hydroxysteroid-Delta(8),Delta(7)-isomerase [Homo sapiens]

MTTNAGPLHPYWPQHLRLDNFVPNDRPTWHILAGLFSVTGVLVVTTWLLSGRAAVVPLGTWRRLSLCWFAVCGFIHLVIEGWFVLYYEDLLGDQAFLSQLWKEYAKGDSRYILGDNFTVCMETITACLWGPLSLWVVIAFLRQHPLRFILQLVVSVGQIYGDVLYFLTEHRDGFQHGELGHPLYFWFYFVFMNALWLVLPGVLVLDAVKHLTHAQSTLDAKATKAKSKKN

>NP\_006752.1 14-3-3 protein epsilon [Homo sapiens]

MDDREDLVYQAKLAEQAERYDEMVESMKKVAGMDVELTVEERNLLSVAYKNVIGARRASWRIISSIEQKEENKGGEDKLKMIREYRQMVETELKLICCDILDVLDKHLIPAANTGESKVFYYKMKGDYHRYLAEFATGNDRKEAAENSLVAYKAASDIAMTELPPTHPIRLGLALNFSVFYYEILNSPDRACRLAKAAFDDAIAELDTLSEESYKDSTLIMQLLRDNLTLWTSDMQGDGEEQNKEALQDVEDENQ

>CAB56463.1 dopamine receptor D2 [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>sp|O43525.2|KCNQ3\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily KQT member 3; AltName: Full=KQT-like 3; AltName: Full=Potassium channel subunit alpha KvLQT3; AltName: Full=Voltage-gated potassium channel subunit Kv7.3

MGLKARRAAGAAGGGGDGGGGGGGAANPAGGDAAAAGDEERKVGLAPGDVEQVTLALGAGADKDGTLLLEGGGRDEGQRRTPQGIGLLAKTPLSRPVKRNNAKYRRIQTLIYDALERPRGWALLYHALVFLIVLGCLILAVLTTFKEYETVSGDWLLLLETFAIFIFGAEFALRIWAAGCCCRYKGWRGRLKFARKPLCMLDIFVLIASVPVVAVGNQGNVLATSLRSLRFLQILRMLRMDRRGGTWKLLGSAICAHSKELITAWYIGFLTLILSSFLVYLVEKDVPEVDAQGEEMKEEFETYADALWWGLITLATIGYGDKTPKTWEGRLIAATFSLIGVSFFALPAGILGSGLALKVQEQHRQKHFEKRRKPAAELIQAAWRYYATNPNRIDLVATWRFYESVVSFPFFRKEQLEAASSQKLGLLDRVRLSNPRGSNTKGKLFTPLNVDAIEESPSKEPKPVGLNNKERFRTAFRMKAYAFWQSSEDAGTGDPMAEDRGYGNDFPIEDMIPTLKAAIRAVRILQFRLYKKKFKETLRPYDVKDVIEQYSAGHLDMLSRIKYLQTRIDMIFTPGPPSTPKHKKSQKGSAFTFPSQQSPRNEPYVARPSTSEIEDQSMMGKFVKVERQVQDMGKKLDFLVDMHMQHMERLQVQVTEYYPTKGTSSPAEAEKKEDNRYSDLKTIICNYSETGPPEPPYSFHQVTIDKVSPYGFFAHDPVNLPRGGPSSGKVQATPPSSATTYVERPTVLPILTLLDSRVSCHSQADLQGPYSDRISPRQRRSITRDSDTPLSLMSVNHEELERSPSGFSISQDRDDYVFGPNGGSSWMREKRYLAEGETDTDTDPFTPSGSMPLSSTGDGISDSVWTPSNKPI

>NP\_000666.2 adenosine receptor A2a [Homo sapiens]

MPIMGSSVYITVELAIAVLAILGNVLVCWAVWLNSNLQNVTNYFVVSLAAADIAVGVLAIPFAITISTGFCAACHGCLFIACFVLVLTQSSIFSLLAIAIDRYIAIRIPLRYNGLVTGTRAKGIIAICWVLSFAIGLTPMLGWNNCGQPKEGKNHSQGCGEGQVACLFEDVVPMNYMVYFNFFACVLVPLLLMLGVYLRIFLAARRQLKQMESQPLPGERARSTLQKEVHAAKSLAIIVGLFALCWLPLHIINCFTFFCPDCSHAPLWLMYLAIVLSHTNSVVNPFIYAYRIREFRQTFRKIIRSHVLRQQEPFKAAGTSARVLAAHGSDGEQVSLRLNGHPPGVWANGSAPHPERRPNGYALGLVSGGSAQESQGNTGLPDVELLSHELKGVCPEPPGLDDPLAQDGAGVS

>NP\_009143.1 E3 ubiquitin-protein ligase RING2 [Homo sapiens]

MSQAVQTNGTQPLSKTWELSLYELQRTPQEAITDGLEIVVSPRSLHSELMCPICLDMLKNTMTTKECLHRFCADCIITALRSGNKECPTCRKKLVSKRSLRPDPNFDALISKIYPSRDEYEAHQERVLARINKHNNQQALSHSIEEGLKIQAMNRLQRGKKQQIENGSGAEDNGDSSHCSNASTHSNQEAGPSNKRTKTSDDSGLELDNNNAAMAIDPVMDGASEIELVFRPHPTLMEKDDSAQTRYIKTSGNATVDHLSKYLAVRLALEELRSKGESNQMNLDTASEKQYTIYIATASGQFTVLNGSFSLELVSEKYWKVNKPMELYYAPTKEHK

>sp|O75469.1|NR1I2\_HUMAN RecName: Full=Nuclear receptor subfamily 1 group I member 2; AltName: Full=Orphan nuclear receptor PAR1; AltName: Full=Orphan nuclear receptor PXR; AltName: Full=Pregnane X receptor; AltName: Full=Steroid and xenobiotic receptor; Short=SXR

MEVRPKESWNHADFVHCEDTESVPGKPSVNADEEVGGPQICRVCGDKATGYHFNVMTCEGCKGFFRRAMKRNARLRCPFRKGACEITRKTRRQCQACRLRKCLESGMKKEMIMSDEAVEERRALIKRKKSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>sp|P51787.3|KCNQ1\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily KQT member 1; AltName: Full=IKs producing slow voltage-gated potassium channel subunit alpha KvLQT1; AltName: Full=KQT-like 1; AltName: Full=Voltage-gated potassium channel subunit Kv7.1

MAAASSPPRAERKRWGWGRLPGARRGSAGLAKKCPFSLELAEGGPAGGALYAPIAPGAPGPAPPASPAAPAAPPVASDLGPRPPVSLDPRVSIYSTRRPVLARTHVQGRVYNFLERPTGWKCFVYHFAVFLIVLVCLIFSVLSTIEQYAALATGTLFWMEIVLVVFFGTEYVVRLWSAGCRSKYVGLWGRLRFARKPISIIDLIVVVASMVVLCVGSKGQVFATSAIRGIRFLQILRMLHVDRQGGTWRLLGSVVFIHRQELITTLYIGFLGLIFSSYFVYLAEKDAVNESGRVEFGSYADALWWGVVTVTTIGYGDKVPQTWVGKTIASCFSVFAISFFALPAGILGSGFALKVQQKQRQKHFNRQIPAAASLIQTAWRCYAAENPDSSTWKIYIRKAPRSHTLLSPSPKPKKSVVVKKKKFKLDKDNGVTPGEKMLTVPHITCDPPEERRLDHFSVDGYDSSVRKSPTLLEVSMPHFMRTNSFAEDLDLEGETLLTPITHISQLREHHRATIKVIRRMQYFVAKKKFQQARKPYDVRDVIEQYSQGHLNLMVRIKELQRRLDQSIGKPSLFISVSEKSKDRGSNTIGARLNRVEDKVTQLDQRLALITDMLHQLLSLHGGSTPGSGGPPREGGAHITQPCGSGGSVDPELFLPSNTLPTYEQLTVPRRGPDEGS

>sp|P56696.1|KCNQ4\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily KQT member 4; AltName: Full=Voltage-gated potassium channel subunit Kv7.4; AltName: Full=Potassium channel subunit alpha KvLQT4; AltName: Full=KQT-like 4

MAEAPPRRLGLGPPPGDAPRAELVALTAVQSEQGEAGGGGSPRRLGLLGSPLPPGAPLPGPGSGSGSACGQRSSAAHKRYRRLQNWVYNVLERPRGWAFVYHVFIFLLVFSCLVLSVLSTIQEHQELANECLLILEFVMIVVFGLEYIVRVWSAGCCCRYRGWQGRFRFARKPFCVIDFIVFVASVAVIAAGTQGNIFATSALRSMRFLQILRMVRMDRRGGTWKLLGSVVYAHSKELITAWYIGFLVLIFASFLVYLAEKDANSDFSSYADSLWWGTITLTTIGYGDKTPHTWLGRVLAAGFALLGISFFALPAGILGSGFALKVQEQHRQKHFEKRRMPAANLIQAAWRLYSTDMSRAYLTATWYYYDSILPSFRELALLFEHVQRARNGGLRPLEVRRAPVPDGAPSRYPPVATCHRPGSTSFCPGESSRMGIKDRIRMGSSQRRTGPSKQQLAPPTMPTSPSSEQVGEATSPTKVQKSWSFNDRTRFRASLRLKPRTSAEDAPSEEVAEEKSYQCELTVDDIMPAVKTVIRSIRILKFLVAKRKFKETLRPYDVKDVIEQYSAGHLDMLGRIKSLQTRVDQIVGRGPGDRKAREKGDKGPSDAEVVDEISMMGRVVKVEKQVQSIEHKLDLLLGFYSRCLRSGTSASLGAVQVPLFDPDITSDYHSPVDHEDISVSAQTLSISRSVSTNMD

>BAA88711.1 sister p-glycoprotein, partial [Homo sapiens]

KQRIAIARAIVRDPKILLLDEATSALDTESEKTVQVALDKAREGRTCIVIAHRLSTIQNADII

>sp|Q9Y6J6.1|KCNE2\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily E member 2; AltName: Full=MinK-related peptide 1; AltName: Full=Minimum potassium ion channel-related peptide 1; AltName: Full=Potassium channel subunit beta MiRP1

MSTLSNFTQTLEDVFRRIFITYMDNWRQNTTAEQEALQAKVDAENFYYVILYLMVMIGMFSFIIVAILVSTVKSKRREHSNDPYHQYIVEDWQEKYKSQILNLEESKATIHENIGAAGFKMSP

>pdb|1BYW|A Chain A, PROTEIN (HUMAN ERG POTASSIUM CHANNEL)

SRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPCTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEK

>AAF61479.1 dopamine receptor D2longer [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVVQEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>AAB31163.2 alpha adrenergic receptor subtype alpha 1a [Homo sapiens]

MTFRDLLSVSFEGPRPDSSAGGSSAGGGGGGAGGAAPSEGPAVGGVPGGAGGGGGVVGAGSGEDNRSSAGEPGSAGAGGDVNGTAAVGGLVVSAQGVGVGVFLAAFILMAVAGNLLVILSVACNRHLQTVTNYFIVNLAVADLLLSATVLPFSATMEVLGFWAFGRAFCDVWAAVDVLCCTASILSLCTISVDRYVGVRHSLKYPAIMTERKAAAILALLWVVALVVSVGPLLGWKEPVPPDERFCGITEEAGYAVFSSVCSFYLPMAVIVVMYCRVYVVARSTTRSLEAGVKRERGKASEVVLRIHCRGAATGADGAHGMRSAKGHTFRSSLSVRLLKFSREKKAAKTLAIVVGVFVLCWFPFFFVLPLGSLFPQLKPSEGVFKVIFWLGYFNSCVNPLIYPCSSREFKRAFLRLLRCQCRRRRRRRPLWRVYGHHWRASTSGLRQDCAPSSGDAPPGAPLALTALPDPDPEPPGTPEMQAPVASRRKPPSAFREWRLLGPFRRPTTQLRAKVSSLSHKIPAGGAQRAEAACAQRSEVEAVSLGVPHEVAEGATCQAYELADYSNLRETDI

>NP\_060182.1 pyroglutamyl-peptidase 1 isoform 1 [Homo sapiens]

MEQPRKAVVVTGFGPFGEHTVNASWIAVQELEKLGLGDSVDLHVYEIPVEYQTVQRLIPALWEKHSPQLVVHVGVSGMATTVTLEKCGHNKGYKGLDNCRFCPGSQCCVEDGPESIDSIIDMDAVCKRVTTLGLDVSVTISQDAGRYLCDFTYYTSLYQSHGRSAFVHVPPLGKPYNADQLGRALRAIIEEMLDLLEQSEGKINYCHKH

>NP\_005680.1 ATP-binding cassette sub-family B member 6, mitochondrial isoform 1 [Homo sapiens]

MVTVGNYCEAEGPVGPAWMQDGLSPCFFFTLVPSTRMALGTLALVLALPCRRRERPAGADSLSWGAGPRISPYVLQLLLATLQAALPLAGLAGRVGTARGAPLPSYLLLASVLESLAGACGLWLLVVERSQARQRLAMGIWIKFRHSPGLLLLWTVAFAAENLALVSWNSPQWWWARADLGQQVQFSLWVLRYVVSGGLFVLGLWAPGLRPQSYTLQVHEEDQDVERSQVRSAAQQSTWRDFGRKLRLLSGYLWPRGSPALQLVVLICLGLMGLERALNVLVPIFYRNIVNLLTEKAPWNSLAWTVTSYVFLKFLQGGGTGSTGFVSNLRTFLWIRVQQFTSRRVELLIFSHLHELSLRWHLGRRTGEVLRIADRGTSSVTGLLSYLVFNVIPTLADIIIGIIYFSMFFNAWFGLIVFLCMSLYLTLTIVVTEWRTKFRRAMNTQENATRARAVDSLLNFETVKYYNAESYEVERYREAIIKYQGLEWKSSASLVLLNQTQNLVIGLGLLAGSLLCAYFVTEQKLQVGDYVLFGTYIIQLYMPLNWFGTYYRMIQTNFIDMENMFDLLKEETEVKDLPGAGPLRFQKGRIEFENVHFSYADGRETLQDVSFTVMPGQTLALVGPSGAGKSTILRLLFRFYDISSGCIRIDGQDISQVTQASLRSHIGVVPQDTVLFNDTIADNIRYGRVTAGNDEVEAAAQAAGIHDAIMAFPEGYRTQVGERGLKLSGGEKQRVAIARTILKAPGIILLDEATSALDTSNERAIQASLAKVCANRTTIVVAHRLSTVVNADQILVIKDGCIVERGRHEALLSRGGVYADMWQLQQGQEETSEDTKPQTMER

>NP\_061338.1 phosphatidylcholine translocator ABCB4 isoform C [Homo sapiens]

MDLEAAKNGTAWRPTSAEGDFELGISSKQKRKKTKTVKMIGVLTLFRYSDWQDKLFMSLGTIMAIAHGSGLPLMMIVFGEMTDKFVDTAGNFSFPVNFSLSLLNPGKILEEEMTRYAYYYSGLGAGVLVAAYIQVSFWTLAAGRQIRKIRQKFFHAILRQEIGWFDINDTTELNTRLTDDISKISEGIGDKVGMFFQAVATFFAGFIVGFIRGWKLTLVIMAISPILGLSAAVWAKILSAFSDKELAAYAKAGAVAEEALGAIRTVIAFGGQNKELERYQKHLENAKEIGIKKAISANISMGIAFLLIYASYALAFWYGSTLVISKEYTIGNAMTVFFSILIGAFSVGQAAPCIDAFANARGAAYVIFDIIDNNPKIDSFSERGHKPDSIKGNLEFNDVHFSYPSRANVKILKGLNLKVQSGQTVALVGSSGCGKSTTVQLIQRLYDPDEGTINIDGQDIRNFNVNYLREIIGVVSQEPVLFSTTIAENICYGRGNVTMDEIKKAVKEANAYEFIMKLPQKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAEVQAALDKAREGRTTIVIAHRLSTVRNADVIAGFEDGVIVEQGSHSELMKKEGVYFKLVNMQTSGSQIQSEEFELNDEKAATRMAPNGWKSRLFRHSTQKNLKNSQMCQKSLDVETDGLEANVPPVSFLKVLKLNKTEWPYFVVGTVCAIANGGLQPAFSVIFSEIIAIFGPGDDAVKQQKCNIFSLIFLFLGIISFFTFFLQGFTFGKAGEILTRRLRSMAFKAMLRQDMSWFDDHKNSTGALSTRLATDAAQVQGATGTRLALIAQNIANLGTGIIISFIYGWQLTLLLLAVVPIIAVSGIVEMKLLAGNAKRDKKELEAAGKIATEAIENIRTVVSLTQERKFESMYVEKLYGPYRVFSAIVFGAVALGHASSFAPDYAKAKLSAAHLFMLFERQPLIDSYSEEGLKPDKFEGNITFNEVVFNYPTRANVPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGTVLLDGQEAKKLNVQWLRAQLGIVSQEPILFDCSIAENIAYGDNSRVVSQDEIVSAAKAANIHPFIETLPHKYETRVGDKGTQLSGGQKQRIAIARALIRQPQILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTQNL

>AAG23345.1 PAR2, partial [Homo sapiens]

MTVTRTHHF

>AAG33617.1 ATP-binding cassette half-transporter [Homo sapiens]

MAWSTCVPSRDPRSLAPSGYVSQGTRMSCAPLRVTSPGLRSRSARSLGRRPRIAMVTVGNYCEAEGPVGPAWMQDGLSPCFFFTLVPSTRMALGTLALVLALPCRRRERPAGADSLSWGAGPRISPYVLQLLLATLQAALPLAGLAGRVGTARGAPLPSYLLLASVLESLAGACGLWLLVVERSQARQRLAMGIWIKFRHSPGLLLLWTVAFAAENLALVSWNSPQWWWARADLGQQVQFSLWVLRYVVSGGLFVLGLWAPGLRPQSYTLQVHEEDQDVERSQVRSAAQQSTWRDFGRKLRLLSGYLWPRGSPALQLVVLICLGLMGLERALNVLVPIFYRNIVNLLTEKAPWNSLAWTVTSYVFLKFLQGGGTGSTGFVSNLRTFLWIRVQQFTSRRVELLIFSHLHELSLRWHLGRRTGEVLRIADRGTSSVTGLLSYLVFNVIPTLADIIIGIIYFSMFFNAWFGLIVFLCMSLYLTLTIVVTEWRTKFRRAMNTQENATRARAVDSLLNFETVKYYNAESYEVERYREAIIKYQGLEWKSSASLVLLNQTQNLVIGLGLLAGSLLCAYFVTEQKLQVGDYVLFGTYIIQLYMPLNWFGTYYRMIQTNFIDMENMFDLLKEETEVKDLPGAGPLRFQKGRIEFENVHFSYADGRETLQDVSFTVMPGQTLALVGPSGAGKSTILRLLFRFYDISSGCIRIDGQDISQVTQASLRSHIGVVPQDTVLFNDTIADNIRYGRVTAGNDEVEAAAQAAGIHDAIMAFPEGYRTQVGERGLKLSGGEKQRVAIARTILKAPGIILLDEATSALDTSNERAIQASLAKVCANRTTIVVAHRLSTVVNADQILVIKDGCIVERGRHEALLSRGGVYADMWQLQQGQEETSEDTKPQTMER

>AAG33618.1 ATP-binding cassette half-transporter, partial [Homo sapiens]

MAWSTCVPSRDPRSLAPSGYVSQGTRMSCAPLRVTSPGLRSRSARSLGRRPRIAMVTVGNYCEAEGPVGPAWMQDGLSPCFFFTLVPSTRMALGTLALVLALPCRRRERPAGADSLSWGAGPRISPYVLQLLLATLQAALPLAGLAGRVGTARGAPLPSYLLLASVLESLAGACGLWLLVVERSQARQRLAMGIWIKFRHSPGLLLLWTVAFAAENLALVSWNNPQWWWARADLGQQVQFSLWVLRYVVSGGLFVLGLWAPGLRPQSYTLQVHEEDQDVERSQ

>NP\_071395.1 p53-regulated apoptosis-inducing protein 1 [Homo sapiens]

MGSSSEASFRSAQASCSGARRQGLGRGDQNLSVMPPNGRAQTHTPGWVSPCSENRDGLLPATAPGRLCSHRGADIPSFQTHQDPVTASGSSELHADCPQFRALDRAGN

>NP\_071285.1 nuclear receptor subfamily 1 group I member 2 isoform 2 [Homo sapiens]

MTVTRTHHFKEGSLRAPAIPLHSAAAELASNHPRGPEANLEVRPKESWNHADFVHCEDTESVPGKPSVNADEEVGGPQICRVCGDKATGYHFNVMTCEGCKGFFRRAMKRNARLRCPFRKGACEITRKTRRQCQACRLRKCLESGMKKEMIMSDEAVEERRALIKRKKSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>BAB19682.1 HERG-USO [Homo sapiens]

MPVRRGHVAPQNTFLDTIIRKFEGQSRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVGSPAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSGGAGGAGAPGAVVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSXYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGMGWGAGTGLEMPSAASRGASLLNMQSLGLWTWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGSHILLPFRIRHKQTLFASLK

>NP\_068712.1 gamma-aminobutyric acid receptor subunit beta-3 isoform 2 precursor [Homo sapiens]

MCSGLLELLLPIWLSWTLGTRGSEPRSVNDPGNMSFVKETVDKLLKGYDIRLRPDFGGPPVCVGMNIDIASIDMVSEVNMDYTLTMYFQQYWRDKRLAYSGIPLNLTLDNRVADQLWVPDTYFLNDKKSFVHGVTVKNRMIRLHPDGTVLYGLRITTTAACMMDLRRYPLDEQNCTLEIESYGYTTDDIEFYWRGGDKAVTGVERIELPQFSIVEHRLVSRNVVFATGAYPRLSLSFRLKRNIGYFILQTYMPSILITILSWVSFWINYDASAARVALGITTVLTMTTINTHLRETLPKIPYVKAIDMYLMGCFVFVFLALLEYAFVNYIFFGRGPQRQKKLAEKTAKAKNDRSKSESNRVDAHGNILLTSLEVHNEMNEVSGGIGDTRNSAISFDNSGIQYRKQSMPREGHGRFLGDRSLPHKKTHLRRRSSQLKIKIPDLTDVNAIDRWSRIVFPFTFSLFNLVYWLYYVN

>NP\_076917.1 5-hydroxytryptamine receptor 5A [Homo sapiens]

MDLPVNLTSFSLSTPSPLETNHSLGKDDLRPSSPLLSVFGVLILTLLGFLVAATFAWNLLVLATILRVRTFHRVPHNLVASMAVSDVLVAALVMPLSLVHELSGRRWQLGRRLCQLWIACDVLCCTASIWNVTAIALDRYWSITRHMEYTLRTRKCVSNVMIALTWALSAVISLAPLLFGWGETYSEGSEECQVSREPSYAVFSTVGAFYLPLCVVLFVYWKIYKAAKFRVGSRKTNSVSPISEAVEVKDSAKQPQMVFTVRHATVTFQPEGDTWREQKEQRAALMVGILIGVFVLCWIPFFLTELISPLCSCDIPAIWKSIFLWLGYSNSFFNPLIYTAFNKNYNSAFKNFFSRQH

>AAK38720.1 orphan nuclear receptor PXR.1 [Homo sapiens]

MEVRPKESWNHADFVHCEDTESVPGKPSVNADEEVGGPQICRVCGDKATGYHFNVMTCEGCKGFFRRAMKRNARLRCPFRKGACEITRKTRRQCQACRLRKCLESGMKKEMIMSDEAVEERRALIKRKKSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>sp|O43526.2|KCNQ2\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily KQT member 2; AltName: Full=KQT-like 2; AltName: Full=Neuroblastoma-specific potassium channel subunit alpha KvLQT2; AltName: Full=Voltage-gated potassium channel subunit Kv7.2

MVQKSRNGGVYPGPSGEKKLKVGFVGLDPGAPDSTRDGALLIAGSEAPKRGSILSKPRAGGAGAGKPPKRNAFYRKLQNFLYNVLERPRGWAFIYHAYVFLLVFSCLVLSVFSTIKEYEKSSEGALYILEIVTIVVFGVEYFVRIWAAGCCCRYRGWRGRLKFARKPFCVIDIMVLIASIAVLAAGSQGNVFATSALRSLRFLQILRMIRMDRRGGTWKLLGSVVYAHSKELVTAWYIGFLCLILASFLVYLAEKGENDHFDTYADALWWGLITLTTIGYGDKYPQTWNGRLLAATFTLIGVSFFALPAGILGSGFALKVQEQHRQKHFEKRRNPAAGLIQSAWRFYATNLSRTDLHSTWQYYERTVTVPMYSSQTQTYGASRLIPPLNQLELLRNLKSKSGLAFRKDPPPEPSPSKGSPCRGPLCGCCPGRSSQKVSLKDRVFSSPRGVAAKGKGSPQAQTVRRSPSADQSLEDSPSKVPKSWSFGDRSRARQAFRIKGAASRQNSEEASLPGEDIVDDKSCPCEFVTEDLTPGLKVSIRAVCVMRFLVSKRKFKESLRPYDVMDVIEQYSAGHLDMLSRIKSLQSRVDQIVGRGPAITDKDRTKGPAEAELPEDPSMMGRLGKVEKQVLSMEKKLDFLVNIYMQRMGIPPTETEAYFGAKEPEPAPPYHSPEDSREHVDRHGCIVKIVRSSSSTGQKNFSAPPAAPPVQCPPSTSWQPQSHPRQGHGTSPVGDHGSLVRIPPPPAHERSLSAYGGGNRASMEFLRQEDTPGCRPPEGNLRDSDTSISIPSVDHEELERSFSGFSISQSKENLDALNSCYAAVAPCAKVRPYIAEGESDTDSDLCTPCGPPPRSATGEGPFGDVGWAGPRK

>AAK68112.1 m1 muscarinic cholinergic receptor [Homo sapiens]

MNTSAPPAVSPNITVLAPGKGPWQVAFIGITTGLLSLATVTGNLLVLISFKVNTELKTVNNYFLLSLACADLIIGTFSMNLYTTYLLMGHWALGTLACDLWLALDYVASNASVMNLLLISFDRYFSVTRPLSYRAKRTPRRAALMIGLAWLVSFVLWAPAILFWQYLVGERTVLAGQCYIQFLSQPIITFGTAMAAFYLPVTVMCTLYWRIYRETENRARELAALQGSETPGKGGGSSSSSERSQPGAEGSPETPPGRCCRCCRAPRLLQAYSWKEEEEEDEGSMESLTSSEGEEPGSEVVIKMPMVDPEAQAPTKQPPRSSPNTVKRPTKKGRDRAGKGQKPRGKEQLAKRKTFSLVKEKKAARTLSAILLAFILTWTPYNIMVLVSTFCKDCVPETLWELGYWLCYVNSTINPMCYALCNKAFRDTFRLLLLCRWDKRRWRKIPKRPGSVHR

>NP\_148934.1 nuclear receptor subfamily 1 group I member 2 isoform 3 [Homo sapiens]

MEVRPKESWNHADFVHCEDTESVPGKPSVNADEEVGGPQICRVCGDKATGYHFNVMTCEGCKGFFRRAMKRNARLRCPFRKGACEITRKTRRQCQACRLRKCLESGMKKEMIMSDEAVEERRALIKRKKSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>pdb|1ILH|A Chain A, Orphan Nuclear Receptor Pxr

MKKGHHHHHHGSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>AAK77197.1 adrenergic receptor alpha-1a [Homo sapiens]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSHPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSREAFYGISRTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARVRSKSFLQVCCCVEPSTPSLDKNHQVPTIKVHTISLSENGEEV

>NP\_055101.2 neuronal calcium sensor 1 isoform 1 [Homo sapiens]

MGKSNSKLKPEVVEELTRKTYFTEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVFDENKDGRIEFSEFIQALSVTSRGTLDEKLRWAFKLYDLDNDGYITRNEMLDIVDAIYQMVGNTVELPEEENTPEKRVDRIFAMMDKNADGKLTLQEFQEGSKADPSIVQALSLYDGLV

>NP\_057658.2 D(2) dopamine receptor isoform short [Homo sapiens]

MDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>CAD28599.1 unnamed protein product [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNKSEKDKKEKKPTVSVFSMFRYSNWLDKLYMVVGTLAAIIHGAGLPLMMLVFGEMTDIFANAGNLEDLMSNITNRSDINDTGFFMNLEEDMTRYAYYYSGIGAGVLVAAYIQVSFWCLAAGRQIHKIRKQFFHAIMRQEIGWFDVHDVGELNTRLTDDVSKINEGIGDKIGMFFQSMATFFTGFIVGFTRGWKLTLVILAISPVLGLSAAVWAKILSSFTDKELLAYAKAGAVAEEVLAAIRTVIAFGGQKKELERYNKNLEEAKRIGIKKAITANISIGAAFLLIYASYALAFWYGTTLVLSGEYSIGQVLTVFFSVLIGAFSVGQASPSIEAFANARGAAYEIFKIIDNKPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPHKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAVVQVALDKARKGRTTIVIAHRLSTVRNADVIAGFDDGVIVEKGNHDELMKEKGIYFKLVTMQTAGNEVELENAADESKSEIDALEMSSNDSRSSLIRKRSTRRSVRGSQAQDRKLSTKEALDESIPPVSFWRIMKLNLTEWPYFVVGVFCAIINGGLQPAFAIIFSKIIGVFTRIDDPETKRQNSNLFSLLFLALGIISFITFFLQGFTFGKAGEILTKRLRYMVFRSMLRQDVSWFDDPKNTTGALTTRLANDAAQVKGAIGSRLAVITQNIANLGTGIIISFIYGWQLTLLLLAIVPIIAIAGVVEMKMLSGQALKDKKELEGAGKIATEAIENFRTVVSLTQEQKFEHMYAQSLQVPYRNSLRKAHIFGITFSFTQAMMYFSYAGCFRFGAYLVAHKLMSFEDVLLVFSAVVFGAMAVGQVSSFAPDYAKAKISAAHIIMIIEKTPLIDSYSTEGLMPNTLEGNVTFGEVVFNYPTRPDIPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGKVLLDGKEIKRLNVQWLRAHLGIVSQEPILFDCSIAENIAYGDNSRVVSQEEIVRAAKEANIHAFIESLPNKYSTKVGDKGTQLSGGQKQRIAIARALVRQPHILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTKRQ

>NP\_005066.2 organic anion transporting polypeptide A isoform b [Homo sapiens]

MFLTKNCKQEQERVESAKMFLLAITCAFVSKTLSGSYMNSMLTQIERQFNIPTSLVGFINGSFEIGNLLL

IIFVSYFGTKLHRPIMIGIGCVVMGLGCFLKSLPHFLMNQYEYESTVSVSGNLSSNSFLCMENGTQILRPTQDPSECTKEVKSLMWVYVLVGNIVRGMGETPILPLGISYIEDFAKFENSPLYIGLVETGAIIGPLIGLLLASFCANVYVDTGFVNTDDLIITPTDTRWVGAWWFGFLICAGVNVLTAIPFFFLPNTLPKEGLETNADIIKNENEDKQKEEVKKEKYGITKDFLPFMKSLSCNPIYMLFILVSVIQFNAFVNMISFMPKYLEQQYGISSSDAIFLMGIYNLPPICIGYIIGGLIMKKFKITVKQAAHIGCWLSLLEYLLYFLSFLMTCENSSVVGINTSYEGIPQDLYVENDIFADCNVDCNCPSKIWDPVCGNNGLSYLSACLAGCETSIGTGINMVFQNCSCIQTSGNSSAVLGLCDKGPDCSLMLQYFLILSAMSSFIYSLAAIPGYMVLLRCMKSEEKSLGVGLHTFCTRVFGKNSYFFPHPIRTILLLLFFITL

>NP\_602307.1 solute carrier organic anion transporter family member 1A2 isoform 1 [Homo sapiens]

MGETEKRIETHRIRCLSKLKMFLLAITCAFVSKTLSGSYMNSMLTQIERQFNIPTSLVGFINGSFEIGNLLLIIFVSYFGTKLHRPIMIGIGCVVMGLGCFLKSLPHFLMNQYEYESTVSVSGNLSSNSFLCMENGTQILRPTQDPSECTKEVKSLMWVYVLVGNIVRGMGETPILPLGISYIEDFAKFENSPLYIGLVETGAIIGPLIGLLLASFCANVYVDTGFVNTDDLIITPTDTRWVGAWWFGFLICAGVNVLTAIPFFFLPNTLPKEGLETNADIIKNENEDKQKEEVKKEKYGITKDFLPFMKSLSCNPIYMLFILVSVIQFNAFVNMISFMPKYLEQQYGISSSDAIFLMGIYNLPPICIGYIIGGLIMKKFKITVKQAAHIGCWLSLLEYLLYFLSFLMTCENSSVVGINTSYEGIPQDLYVENDIFADCNVDCNCPSKIWDPVCGNNGLSYLSACLAGCETSIGTGINMVFQNCSCIQTSGNSSAVLGLCDKGPDCSLMLQYFLILSAMSSFIYSLAAIPGYMVLLRCMKSEEKSLGVGLHTFCTRVFAGIPAPIYFGALMDSTCLHWGTLKCGESGACRIYDSTTFRYIYLGLPAALRGSSFVPALIILILLRKCHLPGENASSGTELIETKVKGKENECKDIYQKSTVLKDDELKTKL

>NP\_005106.2 major vault protein isoform 1 [Homo sapiens]

MATEEFIIRIPPYHYIHVLDQNSNVSRVEVGPKTYIRQDNERVLFAPMRMVTVPPRHYCTVANPVSRDAQGLVLFDVTGQVRLRHADLEIRLAQDPFPLYPGEVLEKDITPLQVVLPNTALHLKALLDFEDKDGDKVVAGDEWLFEGPGTYIPRKEVEVVEIIQATIIRQNQALRLRARKECWDRDGKERVTGEEWLVTTVGAYLPAVFEEVLDLVDAVILTEKTALHLRARRNFRDFRGVSRRTGEEWLVTVQDTEAHVPDVHEEVLGVVPITTLGPHNYCVILDPVGPDGKNQLGQKRVVKGEKSFFLQPGEQLEQGIQDVYVLSEQQGLLLRALQPLEEGEDEEKVSHQAGDHWLIRGPLEYVPSAKVEVVEERQAIPLDENEGIYVQDVKTGKVRAVIGSTYMLTQDEVLWEKELPPGVEELLNKGQDPLADRGEKDTAKSLQPLAPRNKTRVVSYRVPHNAAVQVYDYREKRARVVFGPELVSLGPEEQFTVLSLSAGRPKRPHARRALCLLLGPDFFTDVITIETADHARLQLQLAYNWHFEVNDRKDPQETAKLFSVPDFVGDACKAIASRVRGAVASVTFDDFHKNSARIIRTAVFGFETSEAKGPDGMALPRPRDQAVFPQNGLVVSSVDVQSVEPVDQRTRDALQRSVQLAIEITTNSQEAAAKHEAQRLEQEARGRLERQKILDQSEAEKARKELLELEALSMAVESTGTAKAEAESRAEAARIEGEGSVLQAKLKAQALAIETEAELQRVQKVRELELVYARAQLELEVSKAQQLAEVEVKKFKQMTEAIGPSTIRDLAVAGPEMQVKLLQSLGLKSTLITDGSTPINLFNTAFGLLGMGPEGQPLGRRVASGPSPGEGISPQSAQAPQAPGDNHVVPVLR

>NP\_004153.2 ras-related protein Rab-5A isoform 1 [Homo sapiens]

MASRGATRPNGPNTGNKICQFKLVLLGESAVGKSSLVLRFVKGQFHEFQESTIGAAFLTQTVCLDDTTVKFEIWDTAGQERYHSLAPMYYRGAQAAIVVYDITNEESFARAKNWVKELQRQASPNIVIALSGNKADLANKRAVDFQEAQSYADDNSLLFMETSAKTSMNVNEIFMAIAKKLPKNEPQNPGANSARGRGVDLTEPTQPTRNQCCSN

>NP\_006158.2 homeobox protein Nkx-3.1 isoform 1 [Homo sapiens]

MLRVPEPRPGEAKAEGAAPPTPSKPLTSFLIQDILRDGAQRQGGRTSSQRQRDPEPEPEPEPEGGRSRAGAQNDQLSTGPRAAPEEAETLAETEPERHLGSYLLDSENTSGALPRLPQTPKQPQKRSRAAFSHTQVIELERKFSHQKYLSAPERAHLAKNLKLTETQVKIWFQNRRYKTKRKQLSSELGDLEKHSSLPALKEEAFSRASLVSVYNSYPYYPYLYCVGSWSPAFW

>BAB91222.1 muscarinic acetylcholine receptor M5 [Homo sapiens]

MEGDSYHNATTVNGTPVNHQPLERHRLWEVITIAAVTAVVSLITIVGNVLVMISFKVNSQLKTVNNYYLLSLACADLIIGIFSMNLYTTYILMGRWALGSLACDLWLALDYVASNASVMNLLVISFDRYFSITRPLTYRAKRTPKRAGIMIGLAWLISFILWAPAILCWQYLVGKRTVPLDECQIQFLSEPTITFGTAIAAFYIPVSVMTILYCRIYRETEKRTKDLADLQGSDSVTKAEKRKPAHRALFRSCLRCPRPTLAQRERNQASWSSSRRSTSTTGKPSQATGPSANWAKAEQLTTCSSYPSSEDEDKPATDPVLQVVYKSQGKESPGEEFSAEETEETFVKAETEKSDYDTPNYLLSPAAAHRPKSQKCVAYKFRLVVKADGNQETNNGCHKVKIMPCPFPVAKEPSTKGLNPNPSHQMTKRKRVVLVKERKAAQTLSAILLAFIITWTPYNIMVLVSTFCDKCVPVTLWHLGYWLCYVNSTVNPICYALCNRTFRKTFKMLLLCRWKKKKVEEKLYWQGNSKLP

>NP\_066919.2 voltage-dependent T-type calcium channel subunit alpha-1I isoform a [Homo sapiens]

MAESASPPSSSAAAPAAEPGVTTEQPGPRSPPSSPPGLEEPLDGADPHVPHPDLAPIAFFCLRQTTSPRNWCIKMVCNPWFECVSMLVILLNCVTLGMYQPCDDMDCLSDRCKILQVFDDFIFIFFAMEMVLKMVALGIFGKKCYLGDTWNRLDFFIVMAGMVEYSLDLQNINLSAIRTVRVLRPLKAINRVPSMRILVNLLLDTLPMLGNVLLLCFFVFFIFGIIGVQLWAGLLRNRCFLEENFTIQGDVALPPYYQPEEDDEMPFICSLSGDNGIMGCHEIPPLKEQGRECCLSKDDVYDFGAGRQDLNASGLCVNWNRYYNVCRTGSANPHKGAINFDNIGYAWIVIFQVITLEGWVEIMYYVMDAHSFYNFIYFILLIIVGSFFMINLCLVVIATQFSETKQREHRLMLEQRQRYLSSSTVASYAEPGDCYEEIFQYVCHILRKAKRRALGLYQALQSRRQALGPEAPAPAKPGPHAKEPRHYHGKTKGQGDEGRHLGSRHCQTLHGPASPGNDHSGRELCPQHSPLDATPHTLVQPIPATLASDPASCPCCQHEDGRRPSGLGSTDSGQEGSGSGSSAGGEDEADGDGARSSEDGASSELGKEEEEEEQADGAVWLCGDVWRETRAKLRGIVDSKYFNRGIMMAILVNTVSMGIEHHEQPEELTNILEICNVVFTSMFALEMILKLAAFGLFDYLRNPYNIFDSIIVIISIWEIVGQADGGLSVLRTFRLLRVLKLVRFMPALRRQLVVLMKTMDNVATFCMLLMLFIFIFSILGMHIFGCKFSLRTDTGDTVPDRKNFDSLLWAIVTVFQILTQEDWNVVLYNGMASTSPWASLYFVALMTFGNYVLFNLLVAILVEGFQAEGDANRSYSDEDQSSSNIEEFDKLQEGLDSSGDPKLCPIPMTPNGHLDPSLPLGGHLGPAGAAGPAPRLSLQPDPMLVALGSRKSSVMSLGRMSYDQRSLSSSRSSYYGPWGRSAAWASRRSSWNSLKHKPPSAEHESLLSAERGGGARVCEVAADEGPPRAAPLHTPHAHHIHHGPHLAHRHRHHRRTLSLDNRDSVDLAELVPAVGAHPRAAWRAAGPAPGHEDCNGRMPSIAKDVFTKMGDRGDRGEDEEEIDYTLCFRVRKMIDVYKPDWCEVREDWSVYLFSPENRFRVLCQTIIAHKLFDYVVLAFIFLNCITIALERPQIEAGSTERIFLTVSNYIFTAIFVGEMTLKVVSLGLYFGEQAYLRSSWNVLDGFLVFVSIIDIVVSLASAGGAKILGVLRVLRLLRTLRPLRVISRAPGLKLVVETLISSLKPIGNIVLICCAFFIIFGILGVQLFKGKFYHCLGVDTRNITNRSDCMAANYRWVHHKYNFDNLGQALMSLFVLASKDGWVNIMYNGLDAVAVDQQPVTNHNPWMLLYFISFLLIVSFFVLNMFVGVVVENFHKCRQHQEAEEARRREEKRLRRLEKKRRKAQRLPYYATYCHTRLLIHSMCTSHYLDIFITFIICLNVVTMSLEHYNQPTSLETALKYCNYMFTTVFVLEAVLKLVAFGLRRFFKDRWNQLDLAIVLLSVMGITLEEIEINAALPINPTIIRIMRVLRIARVLKLLKMATGMRALLDTVVQALPQVGNLGLLFMLLFFIYAALGVELFGKLVCNDENPCEGMSRHATFENFGMAFLTLFQVSTGDNWNGIMKDTLRDCTHDERSCLSSLQFVSPLYFVSFVLTAQFVLINVVVAVLMKHLDDSNKEAQEDAEMDAELELEMAHGLGPGPRLPTGSPGAPGRGPGGAGGGGDTEGGLCRRCYSPAQENLWLDSVSLIIKDSLEGELTIIDNLSGSIFHHYSSPAGCKKCHHDKQEVQLAETEAFSLNSDRSSSILLGDDLSLEDPTACPPGRKDSKGELDPPEPMRVGDLGECFFPLSSTAVSPDPENFLCEMEEIPFNPVRSWLKHDSSQAPPSPFSPDASSPLLPMPAEFFHPAVSASQKGPEKGTGTGTLPKIALQGSWASLRSPRVNCTLLRQATGSDTSLDASPSSSAGSLQTTLEDSLTLSDSPRRALGPPAPAPGPRAGLSPAARRRLSLRGRGLFSLRGLRAHQRSHSSGGSTSPGCTHHDSMDPSDEEGRGGAGGGGAGSEHSETLSSLSLTSLFCPPPPPPAPGLTPARKFSSTSSLAAPGRPHAAALAHGLARSPSWAADRSKDPPGRAPLPMGLGPLAPPPQPLPGELEPGDAASKRKR

>NP\_003733.2 bile salt export pump [Homo sapiens]

MSDSVILRSIKKFGEENDGFESDKSYNNDKKSRLQDEKKGDGVRVGFFQLFRFSSSTDIWLMFVGSLCAFLHGIAQPGVLLIFGTMTDVFIDYDVELQELQIPGKACVNNTIVWTNSSLNQNMTNGTRCGLLNIESEMIKFASYYAGIAVAVLITGYIQICFWVIAAARQIQKMRKFYFRRIMRMEIGWFDCNSVGELNTRFSDDINKINDAIADQMALFIQRMTSTICGFLLGFFRGWKLTLVIISVSPLIGIGAATIGLSVSKFTDYELKAYAKAGVVADEVISSMRTVAAFGGEKREVERYEKNLVFAQRWGIRKGIVMGFFTGFVWCLIFLCYALAFWYGSTLVLDEGEYTPGTLVQIFLSVIVGALNLGNASPCLEAFATGRAAATSIFETIDRKPIIDCMSEDGYKLDRIKGEIEFHNVTFHYPSRPEVKILNDLNMVIKPGEMTALVGPSGAGKSTALQLIQRFYDPCEGMVTVDGHDIRSLNIQWLRDQIGIVEQEPVLFSTTIAENIRYGREDATMEDIVQAAKEANAYNFIMDLPQQFDTLVGEGGGQMSGGQKQRVAIARALIRNPKILLLDMATSALDNESEAMVQEVLSKIQHGHTIISVAHRLSTVRAADTIIGFEHGTAVERGTHEELLERKGVYFTLVTLQSQGNQALNEEDIKDATEDDMLARTFSRGSYQDSLRASIRQRSKSQLSYLVHEPPLAVVDHKSTYEEDRKDKDIPVQEEVEPAPVRRILKFSAPEWPYMLVGSVGAAVNGTVTPLYAFLFSQILGTFSIPDKEEQRSQINGVCLLFVAMGCVSLFTQFLQGYAFAKSGELLTKRLRKFGFRAMLGQDIAWFDDLRNSPGALTTRLATDASQVQGAAGSQIGMIVNSFTNVTVAMIIAFSFSWKLSLVILCFFPFLALSGATQTRMLTGFASRDKQALEMVGQITNEALSNIRTVAGIGKERRFIEALETELEKPFKTAIQKANIYGFCFAFAQCIMFIANSASYRYGGYLISNEGLHFSYVFRVISAVVLSATALGRAFSYTPSYAKAKISAARFFQLLDRQPPISVYNTAGEKWDNFQGKIDFVDCKFTYPSRPDSQVLNGLSVSISPGQTLAFVGSSGCGKSTSIQLLERFYDPDQGKVMIDGHDSKKVNVQFLRSNIGIVSQEPVLFACSIMDNIKYGDNTKEIPMERVIAAAKQAQLHDFVMSLPEKYETNVGSQGSQLSRGEKQRIAIARAIVRDPKILLLDEATSALDTESEKTVQVALDKAREGRTCIVIAHRLSTIQNADIIAVMAQGVVIEKGTHEELMAQKGAYYKLVTTGSPIS

>NP\_003734.3 nuclear receptor coactivator 1 isoform 1 [Homo sapiens]

MSGLGDSSSDPANPDSHKRKGSPCDTLASSTEKRRREQENKYLEELAELLSANISDIDSLSVKPDKCKILKKTVDQIQLMKRMEQEKSTTDDDVQKSDISSSSQGVIEKESLGPLLLEALDGFFFVVNCEGRIVFVSENVTSYLGYNQEELMNTSVYSILHVGDHAEFVKNLLPKSLVNGVPWPQEATRRNSHTFNCRMLIHPPDEPGTENQEACQRYEVMQCFTVSQPKSIQEDGEDFQSCLICIARRLPRPPAITGVESFMTKQDTTGKIISIDTSSLRAAGRTGWEDLVRKCIYAFFQPQGREPSYARQLFQEVMTRGTASSPSYRFILNDGTMLSAHTKCKLCYPQSPDMQPFIMGIHIIDREHSGLSPQDDTNSGMSIPRVNPSVNPSISPAHGVARSSTLPPSNSNMVSTRINRQQSSDLHSSSHSNSSNSQGSFGCSPGSQIVANVALNQGQASSQSSNPSLNLNNSPMEGTGISLAQFMSPRRQVTSGLATRPRMPNNSFPPNISTLSSPVGMTSSACNNNNRSYSNIPVTSLQGMNEGPNNSVGFSASSPVLRQMSSQNSPSRLNIQPAKAESKDNKEIASILNEMIQSDNSSSDGKPLDSGLLHNNDRLSDGDSKYSQTSHKLVQLLTTTAEQQLRHADIDTSCKDVLSCTGTSNSASANSSGGSCPSSHSSLTERHKILHRLLQEGSPSDITTLSVEPDKKDSASTSVSVTGQVQGNSSIKLELDASKKKESKDHQLLRYLLDKDEKDLRSTPNLSLDDVKVKVEKKEQMDPCNTNPTPMTKPTPEEIKLEAQSQFTADLDQFDQLLPTLEKAAQLPGLCETDRMDGAVTSVTIKSEILPASLQSATARPTSRLNRLPELELEAIDNQFGQPGTGDQIPWTNNTVTAINQSKSEDQCISSQLDELLCPPTTVEGRNDEKALLEQLVSFLSGKDETELAELDRALGIDKLVQGGGLDVLSERFPPQQATPPLIMEERPNLYSQPYSSPSPTANLPSPFQGMVRQKPSLGTMPVQVTPPRGAFSPGMGMQPRQTLNRPPAAPNQLRLQLQQRLQGQQQLIHQNRQAILNQFAATAPVGINMRSGMQQQITPQPPLNAQMLAQRQRELYSQQHRQRQLIQQQRAMLMRQQSFGNNLPPSSGLPVQMGNPRLPQGAPQQFPYPPNYGTNPGTPPASTSPFSQLAANPEASLANRNSMVSRGMTGNIGGQFGTGINPQMQQNVFQYPGAGMVPQGEANFAPSLSPGSSMVPMPIPPPQSSLLQQTPPASGYQSPDMKAWQQGAIGNNNVFSQAVQNQPTPAQPGVYNNMSITVSMAGGNTNVQNMNPMMAQMQMSSLQMPGMNTVCPEQINDPALRHTGLYCNQLSSTDLLKTEADGTQQVQQVQVFADVQCTVNLVGGDPYLNQPGPLGTQKPTSGPQTPQAQQKSLLQQLLTE

>NP\_671756.1 nuclear receptor coactivator 1 isoform 2 [Homo sapiens]

MSGLGDSSSDPANPDSHKRKGSPCDTLASSTEKRRREQENKYLEELAELLSANISDIDSLSVKPDKCKILKKTVDQIQLMKRMEQEKSTTDDDVQKSDISSSSQGVIEKESLGPLLLEALDGFFFVVNCEGRIVFVSENVTSYLGYNQEELMNTSVYSILHVGDHAEFVKNLLPKSLVNGVPWPQEATRRNSHTFNCRMLIHPPDEPGTENQEACQRYEVMQCFTVSQPKSIQEDGEDFQSCLICIARRLPRPPAITGVESFMTKQDTTGKIISIDTSSLRAAGRTGWEDLVRKCIYAFFQPQGREPSYARQLFQEVMTRGTASSPSYRFILNDGTMLSAHTKCKLCYPQSPDMQPFIMGIHIIDREHSGLSPQDDTNSGMSIPRVNPSVNPSISPAHGVARSSTLPPSNSNMVSTRINRQQSSDLHSSSHSNSSNSQGSFGCSPGSQIVANVALNQGQASSQSSNPSLNLNNSPMEGTGISLAQFMSPRRQVTSGLATRPRMPNNSFPPNISTLSSPVGMTSSACNNNNRSYSNIPVTSLQGMNEGPNNSVGFSASSPVLRQMSSQNSPSRLNIQPAKAESKDNKEIASILNEMIQSDNSSSDGKPLDSGLLHNNDRLSDGDSKYSQTSHKLVQLLTTTAEQQLRHADIDTSCKDVLSCTGTSNSASANSSGGSCPSSHSSLTERHKILHRLLQEGSPSDITTLSVEPDKKDSASTSVSVTGQVQGNSSIKLELDASKKKESKDHQLLRYLLDKDEKDLRSTPNLSLDDVKVKVEKKEQMDPCNTNPTPMTKPTPEEIKLEAQSQFTADLDQFDQLLPTLEKAAQLPGLCETDRMDGAVTSVTIKSEILPASLQSATARPTSRLNRLPELELEAIDNQFGQPGTGDQIPWTNNTVTAINQSKSEDQCISSQLDELLCPPTTVEGRNDEKALLEQLVSFLSGKDETELAELDRALGIDKLVQGGGLDVLSERFPPQQATPPLIMEERPNLYSQPYSSPSPTANLPSPFQGMVRQKPSLGTMPVQVTPPRGAFSPGMGMQPRQTLNRPPAAPNQLRLQLQQRLQGQQQLIHQNRQAILNQFAATAPVGINMRSGMQQQITPQPPLNAQMLAQRQRELYSQQHRQRQLIQQQRAMLMRQQSFGNNLPPSSGLPVQMGNPRLPQGAPQQFPYPPNYGTNPGTPPASTSPFSQLAANPEASLANRNSMVSRGMTGNIGGQFGTGINPQMQQNVFQYPGAGMVPQGEANFAPSLSPGSSMVPMPIPPPQSSLLQQTPPASGYQSPDMKAWQQGAIGNNNVFSQAVQNQPTPAQPGVYNNMSITVSMAGGNTNVQNMNPMMAQMQMSSLQMPGMNTVCPEQINDPALRHTGLYCNQLSSTDLLKTEADGTQDKKTEEFFSVVTTD

>NP\_671766.1 nuclear receptor coactivator 1 isoform 3 [Homo sapiens]

MSGLGDSSSDPANPDSHKRKGSPCDTLASSTEKRRREQENKYLEELAELLSANISDIDSLSVKPDKCKILKKTVDQIQLMKRMEQEKSTTDDDVQKSDISSSSQGVIEKESLGPLLLEALDGFFFVVNCEGRIVFVSENVTSYLGYNQEELMNTSVYSILHVGDHAEFVKNLLPKSLVNGVPWPQEATRRNSHTFNCRMLIHPPDEPGTENQEACQRYEVMQCFTVSQPKSIQEDGEDFQSCLICIARRLPRPPAITGVESFMTKQDTTGKIISIDTSSLRAAGRTGWEDLVRKCIYAFFQPQGREPSYARQLFQEVMTRGTASSPSYRFILNDGTMLSAHTKCKLCYPQSPDMQPFIMGIHIIDREHSGLSPQDDTNSGMSIPRVNPSVNPSISPAHGVARSSTLPPSNSNMVSTRINRQQSSDLHSSSHSNSSNSQGSFGCSPGSQIVANVALNQGQASSQSSNPSLNLNNSPMEGTGISLAQFMSPRRQVTSGLATRPRMPNNSFPPNISTLSSPVGMTSSACNNNNRSYSNIPVTSLQGMNEGPNNSVGFSASSPVLRQMSSQNSPSRLNIQPAKAESKDNKEIASILNEMIQSDNSSSDGKPLDSGLLHNNDRLSDGDSKYSQTSHKLVQLLTTTAEQQLRHADIDTSCKDVLSCTGTSNSASANSSGGSCPSSHSSLTERHKILHRLLQEGSPSDITTLSVEPDKKDSASTSVSVTGQVQGNSSIKLELDASKKKESKDHQLLRYLLDKDEKDLRSTPNLSLDDVKVKVEKKEQMDPCNTNPTPMTKPTPEEIKLEAQSQFTADLDQFDQLLPTLEKAAQLPGLCETDRMDGAVTSVTIKSEILPASLQSATARPTSRLNRLPELELEAIDNQFGQPGTGDQIPWTNNTVTAINQSKSEDQCISSQLDELLCPPTTVEGRNDEKALLEQLVSFLSGKDETELAELDRALGIDKLVQGGGLDVLSERFPPQQATPPLIMEERPNLYSQPYSSPSPTANLPSPFQGMVRQKPSLGTMPVQVTPPRGAFSPGMGMQPRQTLNRPPAAPNQLRLQLQQRLQGQQQLIHQNRQAILNQFAATAPVGINMRSGMQQQITPQPPLNAQMLAQRQRELYSQQHRQRQLIQQQRAMLMRQQSFGNNLPPSSGLPVQMGNPRLPQGAPQQFPYPPNYGTNPGTPPASTSPFSQLAANPEASLANRNSMVSRGMTGNIGGQFGTGINPQMQQNVFQYPGAGMVPQGEANFAPSLSPGSSMVPMPIPPPQSSLLQQTPPASGYQSPDMKAWQQGAIGNNNVFSQAVQNQPTPAQPGVYNNMSITVSMAGGNTNVQNMNPMMAQMQMSSLQMPGMNTVCPEQINDPALRHTGLYCNQLSSTDLLKTEADGTQVQQVQVFADVQCTVNLVGGDPYLNQPGPLGTQKPTSGPQTPQAQQKSLLQQLLTE

>NP\_004167.3 sterol regulatory element-binding protein 1 isoform 2 [Homo sapiens]

MDEPPFSEAALEQALGEPCDLDAALLTDIEDMLQLINNQDSDFPGLFDPPYAGSGAGGTDPASPDTSSPGSLSPPPATLSSSLEAFLSGPQAAPSPLSPPQPAPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFPAPAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAAPVTTTVTSQIQQVPVLLQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLPTLVSGGTILATVPLVVDAEKLPINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQHSNQKLKQENLSLRTAVHKSKSLKDLVSACGSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSGSGGSGSDSEPDSPVFEDSKAKPEQRPSLHSRGMLDRSRLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSPGRNVLGTESRDGPGWAQWLLPPVVWLLNGLLVLVSLVLLFVYGEPVTRPHSGPAVYFWRHRKQADLDLARGDFAQAAQQLWLALRALGRPLPTSHLDLACSLLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHKLHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSVATLAEIYVAAALRVKTSLPRALHFLTRFFLSSARQACLAQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPGSADGDKEFSDALGYLQLLNSCSDAAGAPAYSFSISSSMATTTGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPLVEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSSIDKAVQLFLCDLLLVVRTSLWRQQQPPAPAPAAQGTSSRPQASALELRGFQRDLSSLRRLAQSFRPAMRRVFLHEATARLMAGASPTRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLLASCYLPPGFLSAPGQRVGMLAEAARTLEKLGDRRLLHDCQQMLMRLGGGTTVTSS

>NP\_683865.1 cathepsin E isoform b precursor [Homo sapiens]

MKTLLLLLLVLLELGEAQGSLHRVPLRRHPSLKKKLRARSQLSEFWKSHNLDMIQFTESCSMDQSAKEPLINYLDMEYFGTISIGSPPQNFTVIFDTGSSNLWVPSVYCTSPACKTHSRFQPSQSSTYSQPGQSFSIQYGTGSLSGIIGADQVSVEGLTVVGQQFGESVTEPGQTFVDAEFDGILGLGYPSLAVGGVTPVFDNMMAQNLVDLPMFSVYMSSNPEGGAGSELIFGGYDHSHFSGSLNWVPVTKQAYWQIALDNMLWSVPTLTSCRMSPSPLTESPIPSAQLPTPYWTSWMECSSAAVAFKDLTSTLQLGPSGSWGMSSFDSFTQSLTVGITVWDWPQQSPKEGPCVCACLSDRP

>NP\_740753.1 DNA-directed RNA polymerase I subunit RPA12 [Homo sapiens]

MSVMDLANTCSSFQSDLDFCSDCGSVLPLPGAQDTVTCIRCGFNINVRDFEGKVVKTSVVFHQLGTAMPMSVEEGPECQGPVVDRRCPRCGHEGMAYHTRQMRSADEGQTVFYTCTNCKFQEKEDS

>AAN76500.1 P-glycoprotein [Homo sapiens]

MVVAHRLSTIRSADLIVTLKDGMLAEKGAHAELMAKRGLYYSLVMSQDIKKADEQMESMTYSTERKTNSLPLHSVKSIKSDFIDKAEESTQSKEISLPEVSLLKILKLNKPEWPFVVLGTLASVLNGTVHPVFSIIFAKIITMFGNNDKTTLKHDAEIYSMIFVILGVICFVSYFMQGLFYGRAGEILTMRLRHLAFKAMLYQDIAWFDEKENSTGGLTTILAIDIAQIQGATGSRIGVLTQNATNMGLSVIISFIYGWEMTFLILSIAPVLAVTGMIETAAMTGFANKDKQELKHAGKIATEALENIRTIVSLTREKAFEQMYEEMLQTQHRNTSKKAQIIGSCYAFSHAFIYFAYAAGFRFGAYLIQAGRMTPEGMFIVFTAIAYGAMAIGKTLVLAPEYSKAKSGAAHLFALLEKKPNIDSRSQEGKKPDTCEGNLEFREVSFFYPCRPDVFILRGLSLSIERGKTVAFVGSSGCGKSTSVQLLQRLYDPVQGQVLFDGVDAKELNVQWLRSQIAIVPQEPVLFNCSIAENIAYGDNSRVVPLDEIKEAANAANIHSFIEGLPEKYNTQVGLKGAQLSGGQKQRLAIARALLQKPKILLLDEATSALDNDSEKVVQHALDKARTGRTCLVVTHRLSAIQNADLIVVLHNGKIKEQGTHQELLRNRDIYFKLVNAQSVQ

>sp|Q9H252.1|KCNH6\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily H member 6; AltName: Full=Ether-a-go-go-related gene potassium channel 2; Short=ERG-2; Short=Eag-related protein 2; Short=Ether-a-go-go-related protein 2; Short=hERG-2; Short=hERG2; AltName: Full=Voltage-gated potassium channel subunit Kv11.2

MPVRRGHVAPQNTYLDTIIRKFEGQSRKFLIANAQMENCAIIYCNDGFCELFGYSRVEVMQQPCTCDFLTGPNTPSSAVSRLAQALLGAEECKVDILYYRKDASSFRCLVDVVPVKNEDGAVIMFILNFEDLAQLLAKCSSRSLSQRLLSQSFLGSEGSHGRPGGPGPGTGRGKYRTISQIPQFTLNFVEFNLEKHRSSSTTEIEIIAPHKVVERTQNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLSDQDESRRGACSYTCSPLTVVDLIVDIMFVVDIVINFRTTYVNTNDEVVSHPRRIAVHYFKGWFLIDMVAAIPFDLLIFRTGSDETTTLIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNVERPYLEHKIGWLDSLGVQLGKRYNGSDPASGPSVQDKYVTALYFTFSSLTSVGFGNVSPNTNSEKVFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVKEFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLHRALLQHCPAFSGAGKGCLRALAVKFKTTHAPPGDTLVHLGDVLSTLYFISRGSIEILRDDVVVAILGKNDIFGEPVSLHAQPGKSSADVRALTYCDLHKIQRADLLEVLDMYPAFAESFWSKLEVTFNLRDAAGGLHSSPRQAPGSQDHQGFFLSDNQSGSPHELGPQFPSKGYSLLGPGSQNSMGAGPCAPGHPDAAPPLSISDASGLWPELLQEMPPRHSPQSPQEDPDCWPLKLGSRLEQLQAQMNRLESRVSSDLSRILQLLQKPMPQGHASYILEAPASNDLALVPIASETTSPGPRLPQGFLPPAQTPSYGDLDDCSPKHRNSSPRMPHLAVATDKTLAPSSEQEQPEGLWPPLASPLHPLEVQGLICGPCFSSLPEHLGSVPKQLDFQRHGSDPGFAGSWGH

>sp|Q9NS40.1|KCNH7\_HUMAN RecName: Full=Potassium voltage-gated channel subfamily H member 7; AltName: Full=Voltage-gated potassium channel subunit Kv11.3; AltName: Full=Ether-a-go-go-related gene potassium channel 3; Short=HERG-3; Short=Ether-a-go-go-related protein 3; Short=Eag-related protein 3

MPVRRGHVAPQNTFLGTIIRKFEGQNKKFIIANARVQNCAIIYCNDGFCEMTGFSRPDVMQKPCTCDFLHGPETKRHDIAQIAQALLGSEERKVEVTYYHKNGSTFICNTHIIPVKNQEGVAMMFIINFEYVTDNENAATPERVNPILPIKTVNRKFFGFKFPGLRVLTYRKQSLPQEDPDVVVIDSSKHSDDSVAMKHFKSPTKESCSPSEADDTKALIQPSKCSPLVNISGPLDHSSPKRQWDRLYPDMLQSSSQLSHSRSRESLCSIRRASSVHDIEGFGVHPKNIFRDRHASEDNGRNVKGPFNHIKSSLLGSTSDSNLNKYSTINKIPQLTLNFSEVKTEKKNSSPPSSDKTIIAPKVKDRTHNVTEKVTQVLSLGADVLPEYKLQTPRINKFTILHYSPFKAVWDWLILLLVIYTAIFTPYSAAFLLNDREEQKRRECGYSCSPLNVVDLIVDIMFIIDILINFRTTYVNQNEEVVSDPAKIAIHYFKGWFLIDMVAAIPFDLLIFGSGSDETTTLIGLLKTARLLRLVRVARKLDRYSEYGAAVLMLSMCIFALNAHWLACIWYAIGNVERPYLTDKIGWLDSLGQQIGKRYNDSDSSSGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHMQMLRVKEFIRFHQIPNPLRQRLEEYFQHAWTYTNGIDMNMVLKGFPECLQADICLHLNQTLLQNCKAFRGASKGCLRALAMKFKTTHALQGDTLVHCGDVLTALYFLSRGSIEISKNDMVVAILGKNDIFGEMVHLYAKPGKSNADVRALTYCDLHKIQREDLLEVLDMYPEFSDHFLTNLELTFNLRHESAKADLLRSQSMNDSEGDNCKLRRRKLSFESEGEKENSTNDPEDSADTIRHYQSSKRHFEEKKSRSSSFISSIDDEQKPLFSGIVDSSPGIGKASGLDFEETVPTSGRMHIDKRSHSCKDITDMRSWERENAHPQPEDSSPSALQRAAWGISETESDLTYGEVEQRLDLLQEQLNRLESQMTTDIQTILQLLQKQTTVVPPAYSMVTAGSEYQRPIIQLMRTSQPEASIKTDRSFSPSSQCPEFLDLEKSKLKSKESLSSGVHLNTASEDNLTSLLKQDSDLSLELHLRQRKTYVHPIRHPSLPDSSLSTVGIVGLHRHVSDPGLPGK

>NP\_742053.1 potassium voltage-gated channel subfamily H member 2 isoform b [Homo sapiens]

MPVRRGHVAPQNTFLDTIIRKFEGQSRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVGSPAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSGGAGGAGAPGAVVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGMGWGAGTGLEMPSAASRGASLLNMQSLGLWTWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGSHILLPFRIRHKQTLFASLK

>NP\_742054.1 potassium voltage-gated channel subfamily H member 2 isoform c [Homo sapiens]

MAAPAGKASRTGALRPRAQKGRVRRAVRISSLVAQEVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGKNDIFGEPLNLYARPGKSNGDVRALTYCDLHKIHRDDLLEVLDMYPEFSDHFWSSLEITFNLRDTNMIPGSPGSTELEGGFSRQRKRKLSFRRRTDKDTEQPGEVSALGPGRAGAGPSSRGRPGGPWGESPSSGPSSPESSEDEGPGRSSSPLRLVPFSSPRPPGEPPGGEPLMEDCEKSSDTCNPLSGAFSGVSNIFSFWGDSRGRQYQELPRCPAPTPSLLNIPLSSPGRRPRGDVESRLDALQRQLNRLETRLSADMATVLQLLQRQMTLVPPAYSAVTTPGPGPTSTSPLLPVSPLPTLTLDSLSQVSQFMACEELPPGAPELPQEGPTRRLSLPGQLGALTSQPLHRHGSDPGS

>NP\_751895.1 potassium voltage-gated channel subfamily KQT member 4 isoform b [Homo sapiens]

MAEAPPRRLGLGPPPGDAPRAELVALTAVQSEQGEAGGGGSPRRLGLLGSPLPPGAPLPGPGSGSGSACGQRSSAAHKRYRRLQNWVYNVLERPRGWAFVYHVFIFLLVFSCLVLSVLSTIQEHQELANECLLILEFVMIVVFGLEYIVRVWSAGCCCRYRGWQGRFRFARKPFCVIDFIVFVASVAVIAAGTQGNIFATSALRSMRFLQILRMVRMDRRGGTWKLLGSVVYAHSKELITAWYIGFLVLIFASFLVYLAEKDANSDFSSYADSLWWGTITLTTIGYGDKTPHTWLGRVLAAGFALLGISFFALPAGILGSGFALKVQEQHRQKHFEKRRMPAANLIQAAWRLYSTDMSRAYLTATWYYYDSILPSFSSRMGIKDRIRMGSSQRRTGPSKQHLAPPTMPTSPSSEQVGEATSPTKVQKSWSFNDRTRFRASLRLKPRTSAEDAPSEEVAEEKSYQCELTVDDIMPAVKTVIRSIRILKFLVAKRKFKETLRPYDVKDVIEQYSAGHLDMLGRIKSLQTRVDQIVGRGPGDRKAREKGDKGPSDAEVVDEISMMGRVVKVEKQVQSIEHKLDLLLGFYSRCLRSGTSASLGAVQVPLFDPDITSDYHSPVDHEDISVSAQTLSISRSVSTNMD

>NP\_751951.1 potassium voltage-gated channel subfamily E member 2 [Homo sapiens]

MSTLSNFTQTLEDVFRRIFITYMDNWRQNTTAEQEALQAKVDAENFYYVILYLMVMIGMFSFIIVAILVSTVKSKRREHSNDPYHQYIVEDWQEKYKSQILNLEESKATIHENIGAAGFKMSP

>NP\_775267.1 protein-tyrosine kinase 2-beta isoform b [Homo sapiens]

MSGVSEPLSRVKLGTLRRPEGPAEPMVVVPVDVEKEDVRILKVCFYSNSFNPGKNFKLVKCTVQTEIREIITSILLSGRIGPNIRLAECYGLRLKHMKSDEIHWLHPQMTVGEVQDKYECLHVEAEWRYDLQIRYLPEDFMESLKEDRTTLLYFYQQLRNDYMQRYASKVSEGMALQLGCLELRRFFKDMPHNALDKKSNFELLEKEVGLDLFFPKQMQENLKPKQFRKMIQQTFQQYASLREEECVMKFFNTLAGFANIDQETYRCELIQGWNITVDLVIGPKGIRQLTSQDAKPTCLAEFKQIRSIRCLPLEEGQAVLQLGIEGAPQALSIKTSSLAEAENMADLIDGYCRLQGEHQGSLIIHPRKDGEKRNSLPQIPMLNLEARRSHLSESCSIESDIYAEIPDETLRRPGGPQYGIAREDVVLNRILGEGFFGEVYEGVYTNHKGEKINVAVKTCKKDCTLDNKEKFMSEAVIMKNLDHPHIVKLIGIIEEEPTWIIMELYPYGELGHYLERNKNSLKVLTLVLYSLQICKAMAYLESINCVHRDIAVRNILVASPECVKLGDFGLSRYIEDEDYYKASVTRLPIKWMSPESINFRRFTTASDVWMFAVCMWEILSFGKQPFFWLENKDVIGVLEKGDRLPKPDLCPPVLYTLMTRCWDYDPSDRPRFTELVCSLSDVYQMEKDIAMEQERNARYRTPKILEPTAFQEPPPKPSRPKYRPPPQTNLLAPKLQFQEEDFIQPSSREEAQQLWEAEKVKMRQILDKQQKQMVEDYQWLRQEEKSLDPMVYMNDKSPLTPEKEVGYLEFTGPPQKPPRLGAQSIQPTANLDRTDDLVYLNVMELVRAVLELKNELCQLPPEGYVVVVKNVGLTLRKLIGSVDDLLPSLPSSSRTEIEGTQKLLNKDLAELINKMRLAQQNAVTSLSEECKRQMLTASHTLAVDAKNLLDAVDQAKVLANLAHPPAE

>NP\_775268.1 protein-tyrosine kinase 2-beta isoform a [Homo sapiens]

MSGVSEPLSRVKLGTLRRPEGPAEPMVVVPVDVEKEDVRILKVCFYSNSFNPGKNFKLVKCTVQTEIREIITSILLSGRIGPNIRLAECYGLRLKHMKSDEIHWLHPQMTVGEVQDKYECLHVEAEWRYDLQIRYLPEDFMESLKEDRTTLLYFYQQLRNDYMQRYASKVSEGMALQLGCLELRRFFKDMPHNALDKKSNFELLEKEVGLDLFFPKQMQENLKPKQFRKMIQQTFQQYASLREEECVMKFFNTLAGFANIDQETYRCELIQGWNITVDLVIGPKGIRQLTSQDAKPTCLAEFKQIRSIRCLPLEEGQAVLQLGIEGAPQALSIKTSSLAEAENMADLIDGYCRLQGEHQGSLIIHPRKDGEKRNSLPQIPMLNLEARRSHLSESCSIESDIYAEIPDETLRRPGGPQYGIAREDVVLNRILGEGFFGEVYEGVYTNHKGEKINVAVKTCKKDCTLDNKEKFMSEAVIMKNLDHPHIVKLIGIIEEEPTWIIMELYPYGELGHYLERNKNSLKVLTLVLYSLQICKAMAYLESINCVHRDIAVRNILVASPECVKLGDFGLSRYIEDEDYYKASVTRLPIKWMSPESINFRRFTTASDVWMFAVCMWEILSFGKQPFFWLENKDVIGVLEKGDRLPKPDLCPPVLYTLMTRCWDYDPSDRPRFTELVCSLSDVYQMEKDIAMEQERNARYRTPKILEPTAFQEPPPKPSRPKYRPPPQTNLLAPKLQFQVPEGLCASSPTLTSPMEYPSPVNSLHTPPLHRHNVFKRHSMREEDFIQPSSREEAQQLWEAEKVKMRQILDKQQKQMVEDYQWLRQEEKSLDPMVYMNDKSPLTPEKEVGYLEFTGPPQKPPRLGAQSIQPTANLDRTDDLVYLNVMELVRAVLELKNELCQLPPEGYVVVVKNVGLTLRKLIGSVDDLLPSLPSSSRTEIEGTQKLLNKDLAELINKMRLAQQNAVTSLSEECKRQMLTASHTLAVDAKNLLDAVDQAKVLANLAHPPAE

>NP\_775115.1 potassium voltage-gated channel subfamily H member 6 isoform 2 [Homo sapiens]

MPVRRGHVAPQNTYLDTIIRKFEGQSRKFLIANAQMENCAIIYCNDGFCELFGYSRVEVMQQPCTCDFLTGPNTPSSAVSRLAQALLGAEECKVDILYYRKDASSFRCLVDVVPVKNEDGAVIMFILNFEDLAQLLAKCSSRSLSQRLLSQSFLGSEGSHGRPGGPGPGTGRGKYRTISQIPQFTLNFVEFNLEKHRSSSTTEIEIIAPHKVVERTQNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLSDQDESRRGACSYTCSPLTVVDLIVDIMFVVDIVINFRTTYVNTNDEVVSHPRRIAVHYFKGWFLIDMVAAIPFDLLIFRTGSDETTTLIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACICSLTSVGFGNVSPNTNSEKVFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVKEFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLHRALLQHCPAFSGAGKGCLRALAVKFKTTHAPPGDTLVHLGDVLSTLYFISRGSIEILRDDVVVAILGKNDIFGEPVSLHAQPGKSSADVRALTYCDLHKIQRADLLEVLDMYPAFAESFWSKLEVTFNLRDAAGGLHSSPRQAPGSQDHQGFFLSDNQSDAAPPLSISDASGLWPELLQEMPPRHSPQSPQEDPDCWPLKLGSRLEQLQAQMNRLESRVSSDLSRILQLLQKPMPQGHASYILEAPASNDLALVPIASETTSPGPRLPQGFLPPAQTPSYGDLDDCSPKHRNSSPRMPHLAVATDKTLAPSSEQEQPEGLWPPLASPLHPLEVQGLICGPCFSSLPEHLGSVPKQLDFQRHGSDPGFAGSWGH

>NP\_775185.1 potassium voltage-gated channel subfamily H member 7 isoform 2 [Homo sapiens]

MPVRRGHVAPQNTFLGTIIRKFEGQNKKFIIANARVQNCAIIYCNDGFCEMTGFSRPDVMQKPCTCDFLHGPETKRHDIAQIAQALLGSEERKVEVTYYHKNGSTFICNTHIIPVKNQEGVAMMFIINFEYVTDNENAATPERVNPILPIKTVNRKFFGFKFPGLRVLTYRKQSLPQEDPDVVVIDSSKHSDDSVAMKHFKSPTKESCSPSEADDTKALIQPSKCSPLVNISGPLDHSSPKRQWDRLYPDMLQSSSQLSHSRSRESLCSIRRASSVHDIEGFGVHPKNIFRDRHASEGPFNHIKSSLLGSTSDSNLNKYSTINKIPQLTLNFSEVKTEKKNSSPPSSDKTIIAPKVKDRTHNVTEKVTQVLSLGADVLPEYKLQTPRINKFTILHYSPFKAVWDWLILLLVIYTAIFTPYSAAFLLNDREEQKRRECGYSCSPLNVVDLIVDIMFIIDILINFRTTYVNQNEEVVSDPAKIAIHYFKGWFLIDMVAAIPFDLLIFGSGSDETTTLIGLLKTARLLRLVRVARKLDRYSEYGAAVLMLLMCIFALIAHWLACIWYAIGNVERPYLTDKIGWLDSLGQQIGKRYNDSDSSSGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHMQMLRVKEFIRFHQIPNPLRQRLEEYFQHAWTYTNGIDMNMVCMSVFQNESAAGIIVIAKME

>NP\_005533.2 insulin-induced gene 1 protein isoform 1 [Homo sapiens]

MPRLHDHFWSCSCAHSARRRGPPRASAAGLAAKVGEMINVSVSGPSLLAAHGAPDADPAPRGRSAAMSGPEPGSPYPNTWHHRLLQRSLVLFSVGVVLALVLNLLQIQRNVTLFPEEVIATIFSSAWWVPPCCGTAAAVVGLLYPCIDSHLGEPHKFKREWASVMRCIAVFVGINHASAKLDFANNVQLSLTLAALSLGLWWTFDRSRSGLGLGITIAFLATLITQFLVYNGVYQYTSPDFLYIRSWLPCIFFSGGVTVGNIGRQLAMGVPEKPHSD

>NP\_003158.2 sulfotransferase 2A1 [Homo sapiens]

MSDDFLWFEGIAFPTMGFRSETLRKVRDEFVIRDEDVIILTYPKSGTNWLAEILCLMHSKGDAKWIQSVPIWERSPWVESEIGYTALSETESPRLFSSHLPIQLFPKSFFSSKAKVIYLMRNPRDVLVSGYFFWKNMKFIKKPKSWEEYFEWFCQGTVLYGSWFDHIHGWMPMREEKNFLLLSYEELKQDTGRTIEKICQFLGKTLEPEELNLILKNSSFQSMKENKMSNYSLLSVDYVVDKAQLLRKGVSGDWKNHFTVAQAEDFDKLFQEKMADLPRELFPWE

>NP\_848605.1 ankyrin repeat and protein kinase domain-containing protein 1 [Homo sapiens]

MAADPTELRLGSLPVFTRDDFEGDWRLVASGGFSQVFQARHRRWRTEYAIKCAPCLPPDAASSDVNYLIEEAAKMKKIKFQHIVSIYGVCKQPLGIVMEFMANGSLEKVLSTHSLCWKLRFRIIHETSLAMNFLHSIKPPLLHLDLKPGNILLDSNMHVKISDFGLSKWMEQSTRMQYIERSALRGMLSYIPPEMFLESNKAPGPKYDVYSFAIVIWELLTQKKPYSGFNMMMIIIRVAAGMRPSLQPVSDQWPSEAQQMVDLMKRCWDQDPKKRPCFLDITIETDILLSLLQSRVAVPESKALARKVSCKLSLRQPGEVNEDISQELMDSDSGNYLKRALQLSDRKNLVPRDEELCIYENKVTPLHFLVAQGSVEQVRLLLAHEVDVDCQTASGYTPLLIAAQDQQPDLCALLLAHGADANRVDEDGWAPLHFAAQNGDDGTARLLLDHGACVDAQEREGWTPLHLAAQNNFENVARLLVSRQADPNLHEAEGKTPLHVAAYFGHVSLVKLLTSQGAELDAQQRNLRTPLHLAVERGKVRAIQHLLKSGAVPDALDQSGYGPLHTAAARGKYLICKMLLRYGASLELPTHQGWTPLHLAAYKGHLEIIHLLAESHANMGALGAVNWTPLHLAARHGEEAVVSALLQCGADPNAAEQSGWTPLHLAVQRSTFLSVINLLEHHANVHARNKVGWTPAHLAALKGNTAILKVLVEAGAQLDVQDGVSCTPLQLALRSRKQGIMSFLEGKEPSVATLGGSKPGAEMEI

>NP\_000448.3 hepatocyte nuclear factor 4-alpha isoform 2 [Homo sapiens]

MRLSKTLVDMDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGSPSDAPHAHHPLHPHLMQEHMGTNVIVANTMPTHLSNGQMCEWPRPRGQAATPETPQPSPPGGSGSEPYKLLPGAVATIVKPLSAIPQPTITKQEVI

>NP\_849180.1 hepatocyte nuclear factor 4-alpha isoform 1 [Homo sapiens]

MRLSKTLVDMDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGSPSDAPHAHHPLHPHLMQEHMGTNVIVANTMPTHLSNGQMSTPETPQPSPPGGSGSEPYKLLPGAVATIVKPLSAIPQPTITKQEVI

>NP\_849181.1 hepatocyte nuclear factor 4-alpha isoform 3 [Homo sapiens]

MRLSKTLVDMDMADYSAALDPAYTTLEFENVQVLTMGNDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGPCQAQEGRGWSGDSPGDRPHTVSSPLSSLASPLCRFGQVA

>NP\_733827.2 serine/threonine-protein kinase Sgk3 isoform 2 [Homo sapiens]

MQRDHTMDYKESCPSVSIPSSDEHREKKKRFTVYKVLVSVGRSEWFVFRRYAEFDKLYNTLKKQFPAMALKIPAKRIFGDNFDPDFIKQRRAGLNEFIQNLVRYPELYNHPDVRAFLQMDSPKHQSDPSEDEDERSSQKLHSTSQNINLGPSGNPHAKPTDFDFLKVIGKGSFGKVLLAKRKLDGKFYAVKVLQKKIVLNRKEQKHIMAERNVLLKNVKHPFLVGLHYSFQTTEKLYFVLDFVNGGELFFHLQRERSFPEHRARFYAAEIASALGYLHSIKIVYRDLKPENILLDSVGHVVLTDFGLCKEGIAISDTTTTFCGTPEPPFYCRDVAEMYDNILHKPLSLRPGVSLTAWSILEELLEKDRQNRLGAKEDFLEIQNHPFFESLSWADLVQKKIPPPFNPNVAGPDDIRNFDTAFTEETVPYSVCVSSDYSIVNASVLEADDAFVGFSYAPPSEDLFL

>NP\_054790.2 nuclear receptor coactivator 6 isoform 1 [Homo sapiens]

MVLDDLPNLEDIYTSLCSSTMEDSEMDFDSGLEDDDTKSDSILEDSTIFVAFKGNIDDKDFKWKLDAILKNVPNLLHMESSKLKVQKVEPWNSVRVTFNIPREAAERLRILAQSNNQQLRDLGILSVQIEGEGAINLALAQNRSQDVRMNGPMGAGNSVRMEAGFPMASGPGIIRMNNPATVMIPPGGNVSSSMMAPGPNPELQPRTPRPASQSDAMDPLLSGLHIQQQSHPSGSLAPPHHPMQPVSVNRQMNPANFPQLQQQQQQQQQQQQQQQQQQQQQQQQQLQARPPQQHQQQQPQGIRPQFTAPTQVPVPPGWNQLPSGALQPPPAQGSLGTMTANQGWKKAPLPGPMQQQLQARPSLATVQTPSHPPPPYPFGSQQASQAHTNFPQMSNPGQFTAPQMKSLQGGPSRVPTPLQQPHLTNKSPASSPSSFQQGSPASSPTVNQTQQQMGPRPPQNNPLPQGFQQPVSSPGRNPMVQQGNVPPNFM

VMQQQPPNQGPQSLHPGLGGMPKRLPPGFSAGQANPNFMQGQVPSTTATTPGNSGAPQLQANQNVQHAGGQGAGPPQNQMQVSHGPPNMMQPSLMGIHGNMNNQQAGTSGVPQVNLSNMQGQPQQGPPSQLMGMHQQIVPSQGQMVQQQGTLNPQNPMILSRAQLMPQGQMMVNPPSQNLGPSPQRMTPPKQMLSQQGPQMMAPHNQMMGPQGQVLLQQNPMIEQIMTNQMQGNKQQFNTQNQSNVMPGPAQIMRGPTPNMQGNMVQFTGQMSGQMLPQQGPVNNSPSQVMGIQGQVLRPPGPSPHMAQQHGDPATTANNDVSLSQMMPDVSIQQTNMVPPHVQAMQGNSASGNHFSGHGMSFNAPFSGAPNGNQMSCGQNPGFPVNKDVTLTSPLLVNLLQSDISAGHFGVNNKQNNTNANKPKKKKPPRKKKNSQQDLNTPDTRPAGLEEADQPPLPGEQGINLDNSGPKLPEFSNRPPGYPSQPVEQRPLQQMPPQLMQHVAPPPQPPQQQPQPQLPQQQQPPPPSQPQSQQQQQQQQQMMMMLMMQQDPKSVRLPVSQNVHPPRGPLNPDSQRMPMQQSGSVPVMVSLQGPASVPPSPDKQRMPMPVNTPLGSNSRKMVYQESPQNPSSSPLAEMASLPEASGSEAPSVPGGPNNMPSHVVLPQNQLMMTGPKPGPSPLSATQGATPQQPPVNSLPSSHGHHFPNVAAPTQTSRPKTPNRASPRPYYPQTPNNRPPSTEPSEISLSPERLNASIAGLFPPQINIPLPPRPNLNRGFDQQGLNPTTLKAIGQAPSNLTMNPSNFATPQTHKLDSVVVNSGKQSNSGATKRASPSNSRRSSPGSSRKTTPSPGRQNSKAPKLTLASQTNAALLQNVELPRNVLVSPTPLANPPVPGSFPNNSGLNPQNSTVSVAAVGGVVEDNKESLNVPQDSDCQNSQSRKEQVNIELKAVPAQEVKMVVPEDQSKKDGQPSDPNKLPSVEENKNLVSPAMREAPTSLSQLLDNSGAPNVTIKPPGLTDLEVTPPVVSGEDLKKASVIPTLQDLSSSKEPSNSLNLPHSNELCSSLVHPELSEVSSNVAPSIPPVMSRPVSSSSISTPLPPNQITVFVTSNPITTSANTSAALPTHLQSALMSTVVTMPNAGSKVMVSEGQSAAQSNARPQFITPVFINSSSIIQVMKGSQPSTIPAAPLTTNSGLMPPSVAVVGPLHIPQNIKFSSAPVPPNALSSSPAPNIQTGRPLVLSSRATPVQLPSPPCTSSPVVPSHPPVQQVKELNPDEASPQVNTSADQNTLPSSQSTTMVSPLLTNSPGSSGNRRSPVSSSKGKGKVDKIGQILLTKACKKVTGSLEKGEEQYGADGETEGQGLDTTAPGLMGTEQLSTELDSKTPTPPAPTLLKMTSSPVGPGTASAGPSLPGGALPTSVRSIVTTLVPSELISAVPTTKSNHGGIASESLAGGLVEEKVGSHPELLPSIAPSQNLVSKETSTTALQASVARPELEVNAAIVSGQSSEPKEIVEKSKIPGRRNSRTEEPTVASESVENGHRKRSSRPASASSSTKDITSAVQSKRRKSK

>NP\_000788.2 D(4) dopamine receptor [Homo sapiens]

MGNRSTADADGLLAGRGPAAGASAGASAGLAGQGAAALVGGVLLIGAVLAGNSLVCVSVATERALQTPTNSFIVSLAAADLLLALLVLPLFVYSEVQGGAWLLSPRLCDALMAMDVMLCTASIFNLCAISVDRFVAVAVPLRYNRQGGSRRQLLLIGATWLLSAAVAAPVLCGLNDVRGRDPAVCRLEDRDYVVYSSVCSFFLPCPLMLLLYWATFRGLQRWEVARRAKLHGRAPRRPSGPGPPSPTPPAPRLPQDPCGPDCAPPAPGLPRGPCGPDCAPAAPSLPQDPCGPDCAPPAPGLPPDPCGSNCAPPDAVRAAALPPQTPPQTRRRRRAKITGRERKAMRVLPVVVGAFLLCWTPFFVVHITQALCPACSVPPRLVSAVTWLGYVNSALNPVIYTVFNAEFRNVFRKALRACC

>AAQ03033.1 P-glycoprotein [Homo sapiens]

MGSTVVQLLQRLYDPDDGFIMVDENDIRALNVRHYRDHIGVVSQEPVLFGTTISNNIKYGRDDVTDEEMERAAREANAYDFIMEFPNKFNTLVGEKGAQMSGGQKQRIAIARALVRNPKILILDEATSALDSESKSAVQAALEKASKGRTTIVVAHRLSTIRSADLIVTLKDGMLAEKGAHAELMAKRGLYYSLVMSQDIKKADEQMESMTYSTERKTNSLPLHSVKSIKSDFIDKAEESTQSKEISLPEVSLLKILKLNKPEWPFVVLGTLASVLNGTVHPVFSIIFAKIITMFGNNDKTTLKHDAEIYSMIFVILGVICFVSYFMQGLFYGRAGEILTMRLRHLAFKAMLYQDIAWFDEKENSTGGLTTILAIDIAQIQGATGSRIGVLTQNATNMGLSVIISFIYGWEMTFLILSIAPVLAVTGMIETAAMTGFANKDKQELKHAGKIATEALENIRTIVSLTREKAFEQMYEEMLQTQHRNTSKKAQIIGSCYAFSHAFIYFAYAAGFRFGAYLIQAGRMTPEGMFIVFTAIAYGAMAIGKTLVLAPEYSKAKSGAAHLFALLEKKPNIDSRSQEGKKPDTCEGNLEFREVSFFYPCRPDVFILRGLSLSIERGKTVAFVGSSGCGKSTSVQLLQRLYDPVQGQVLFDGVDAKELNVQWLRSQIAIVPQEPVLFNCSIAENIAYGDNSRVVPLDEIKEAANAANIHSFIEGLPEKYNTQVGLKGAQLSGGQKQRLAIARALLQKPKILLLDEATSALDNDSEKVVQHALDKARTGRTCLVVTHRLSAIQNADLIVVLHNGKIKEQGTHQELLRNRDIYFKLVNAQSVQ

>NP\_005393.2 ras-related protein Ral-A precursor [Homo sapiens]

MAANKPKGQNSLALHKVIMVGSGGVGKSALTLQFMYDEFVEDYEPTKADSYRKKVVLDGEEVQIDILDTAGQEDYAAIRDNYFRSGEGFLCVFSITEMESFAATADFREQILRVKEDENVPFLLVGNKSDLEDKRQVSVEEAKNRAEQWNVNYVETSAKTRANVDKVFFDLMREIRARKMEDSKEKNGKKKRKSLAKRIRERCCIL

>NP\_899630.1 calcium-dependent secretion activator 1 isoform 3 [Homo sapiens]

MLDPSSSEEESDEIVEEESGKEVLGSAPSGARLSPSRTSEGSAGSAGLGGGGAGAGAGVGAGGGGGSGASSGGGAGGLQPSSRAGGGRPSSPSPSVVSEKEKEELERLQKEEEERKKRLQLYVFVMRCIAYPFNAKQPTDMARRQQKISKQQLQTVKDRFQAFLNGETQIMADEAFMNAVQSYYEVFLKSDRVARMVQSGGCSANDSREVFKKHIEKRVRSLPEIDGLSKETVLSSWMAKFDAIYRGEEDPRKQQARMTASAASELILSKEQLYEMFQNILGIKKFEHQLLYNACQLDNPDEQAAQIRRELDGRLQMADQIARERKFPKFVSKEMENMYIEELKSSVNLLMANLESMPVSKGGEFKLQKLKRSHNASIIDMGEESENQLSKSDVVLSFSLEVVIMEVQGLKSLAPNRIVYCTMEVEGGEKLQTDQAEASKPTWGTQGDFSTTHALPAVKVKLFTESTGVLALEDKELGRVILHPTPNSPKQSEWHKMTVSKNCPDQDLKIKLAVRMDKPQNMKHSGYLWAIGKNVWKRWKKRFFVLVQVSQYTFAMCSYREKKAEPQELLQLDGYTVDYTDPQPGLEGGRAFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSHKPVPPTQVQKLNAKGGNVPQLDAPISQFYADRAQKHGMDEFISSNPCNFDHASLFEMGWFSPGQVFVLDEYCARNGVRGCHRHLCYLRDLLERAENGAMIDPTLLHYSFAFCASHVHGNRPDGIGTVTVEEKERFEEIKERLRVLLENQITHFRYCFPFGRPEGALKATLSLLERVLMKDIVTPVPQEEVKTVIRKCLEQAALVNYSRLSEYAKIEENVGRLITPAKKLEDTIRLAELVIEVLQQNEEHHAEAFAWWSDLMVEHAETFLSLFAVDMDAALEVQPPDTWDSFPLFQLLNDFLRTDYNLCNGKFHKHLQDLFAPLVVRYVDLMESSIAQSIHRGFERESWEPVNNGSGTSEDLFWKLDALQTFIRDLHWPEEEFGKHLEQRLKLMASDMIESCVKRTRIAFEVKLQKTSRSTDFRVPQSICTMFNVMVDAKAQSTKLCSMEMGQEHQYHSKIDELIEETVKEMITLLVAKFVTILEGVLAKLSRYDEGTLFSSFLSFTVKAASKYVDVPKPGMDVADAYVTFVRHSQDVLRDKVNEEMYIERLFDQWYNSSMNVICTWLTDRMDLQLHIYQLKTLIRMVKKTYRDFRLQGVLDSTLNSKTYETIRNRLTVEEATASVSEGGGLQGISMKDSDEEDEEDD

>NP\_899631.1 calcium-dependent secretion activator 1 isoform 2 [Homo sapiens]

MLDPSSSEEESDEIVEEESGKEVLGSAPSGARLSPSRTSEGSAGSAGLGGGGAGAGAGVGAGGGGGSGASSGGGAGGLQPSSRAGGGRPSSPSPSVVSEKEKEELERLQKEEEERKKRLQLYVFVMRCIAYPFNAKQPTDMARRQQKISKQQLQTVKDRFQAFLNGETQIMADEAFMNAVQSYYEVFLKSDRVARMVQSGGCSANDSREVFKKHIEKRVRSLPEIDGLSKETVLSSWMAKFDAIYRGEEDPRKQQARMTASAASELILSKEQLYEMFQNILGIKKFEHQLLYNACQLDNPDEQAAQIRRELDGRLQMADQIARERKFPKFVSKEMENMYIEELKSSVNLLMANLESMPVSKGGEFKLQKLKRSHNASIIDMGEESENQLSKSDVVLSFSLEVVIMEVQGLKSLAPNRIVYCTMEVEGGEKLQTDQAEASKPTWGTQGDFSTTHALPAVKVKLFTESTGVLALEDKELGRVILHPTPNSPKQSEWHKMTVSKNCPDQDLKIKLAVRMDKPQNMKHSGYLWAIGKNVWKRWKKRFFVLVQVSQYTFAMCSYREKKAEPQELLQLDGYTVDYTDPQPGLEGGRAFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSHKPVPPTQVQKLNAKGGNVPQLDAPISQFYADRAQKHGMDEFISSNPCNFDHASLFEMVQRLTLDHRLNDSYSCLGWFSPGQVFVLDEYCARNGVRGCHRHLCYLRDLLERAENGAMIDPTLLHYSFAFCASHVHGNRPDGIGTVTVEEKERFEEIKERLRVLLENQITHFRYCFPFGRPEGALKATLSLLERVLMKDIVTPVPQEEVKTVIRKCLEQAALVNYSRLSEYAKIEGKKREMYEHPVFCLASQVMDLTIQNVGRLITPAKKLEDTIRLAELVIEVLQQNEEHHAEAFAWWSDLMVEHAETFLSLFAVDMDAALEVQPPDTWDSFPLFQLLNDFLRTDYNLCNGKFHKHLQDLFAPLVVRYVDLMESSIAQSIHRGFERESWEPVNNGSGTSEDLFWKLDALQTFIRDLHWPEEEFGKHLEQRLKLMASDMIESCVKRTRIAFEVKLQKTSRSTDFRVPQSICTMFNVMVDAKAQSTKLCSMEMGQEHQYHSKIDELIEETVKEMITLLVAKFVTILEGVLAKLSRYDEGTLFSSFLSFTVKAASKYVDVPKPGMDVADAYVTFVRHSQDVLRDKVNEEMYIERLFDQWYNSSMNVICTWLTDRMDLQLHIYQLKTLIRMVKKTYRDFRLQGVLDSTLNSKTYETIRNRLTVEEATASVSEGGGLQGISMKDSDEEDEEDD

>NP\_003707.2 calcium-dependent secretion activator 1 isoform 1 [Homo sapiens]

MLDPSSSEEESDEIVEEESGKEVLGSAPSGARLSPSRTSEGSAGSAGLGGGGAGAGAGVGAGGGGGSGASSGGGAGGLQPSSRAGGGRPSSPSPSVVSEKEKEELERLQKEEEERKKRLQLYVFVMRCIAYPFNAKQPTDMARRQQKISKQQLQTVKDRFQAFLNGETQIMADEAFMNAVQSYYEVFLKSDRVARMVQSGGCSANDSREVFKKHIEKRVRSLPEIDGLSKETVLSSWMAKFDAIYRGEEDPRKQQARMTASAASELILSKEQLYEMFQNILGIKKFEHQLLYNACQLDNPDEQAAQIRRELDGRLQMADQIARERKFPKFVSKEMENMYIEELKSSVNLLMANLESMPVSKGGEFKLQKLKRSHNASIIDMGEESENQLSKSDVVLSFSLEVVIMEVQGLKSLAPNRIVYCTMEVEGGEKLQTDQAEASKPTWGTQGDFSTTHALPAVKVKLFTESTGVLALEDKELGRVILHPTPNSPKQSEWHKMTVSKNCPDQDLKIKLAVRMDKPQNMKHSGYLWAIGKNVWKRWKKRFFVLVQVSQYTFAMCSYREKKAEPQELLQLDGYTVDYTDPQPGLEGGRAFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSHKPVPPTQVQKLNAKGGNVPQLDAPISQFYADRAQKHGMDEFISSNPCNFDHASLFEMVQRLTLDHRLNDSYSCLGWFSPGQVFVLDEYCARNGVRGCHRHLCYLRDLLERAENGAMIDPTLLHYSFAFCASHVHGNRPDGIGTVTVEEKERFEEIKERLRVLLENQITHFRYCFPFGRPEGALKATLSLLERVLMKDIVTPVPQEEVKTVIRKCLEQAALVNYSRLSEYAKIEENQKDAENVGRLITPAKKLEDTIRLAELVIEVLQQNEEHHAEPHVDKGEAFAWWSDLMVEHAETFLSLFAVDMDAALEVQPPDTWDSFPLFQLLNDFLRTDYNLCNGKFHKHLQDLFAPLVVRYVDLMESSIAQSIHRGFERESWEPVKSLTSNLPNVNLPNVNLPKVPNLPVNIPLGIPQMPTFSAPSWMAAIYDADNGSGTSEDLFWKLDALQTFIRDLHWPEEEFGKHLEQRLKLMASDMIESCVKRTRIAFEVKLQKTSRSTDFRVPQSICTMFNVMVDAKAQSTKLCSMEMGQEHQYHSKIDELIEETVKEMITLLVAKFVTILEGVLAKLSRYDEGTLFSSFLSFTVKAASKYVDVPKPGMDVADAYVTFVRHSQDVLRDKVNEEMYIERLFDQWYNSSMNVICTWLTDRMDLQLHIYQLKTLIRMVKKTYRDFRLQGVLDSTLNSKTYETIRNRLTVEEATASVSEGGGLQGISMKDSDEEDEEDD

>AAH04311.2 KCNH2 protein, partial [Homo sapiens]

VLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGKNDIFGEPLNLYARPGKSNGDVRALTYCDLHKIHRDDLLEVLDMYPEFSDHFWSSLEITFNLRDTNMIPGSPGSTELEGGFSRQRKRKLSFRRRTDTDTEQPGEVSALGPGRAGAGPSSRGRPGGPWGESPSSGPSSPESSEDEGPGRSSSPLRLVPFSSPRPPGEPPGGEPLMEDCEKSSDTCNPLSGAFSGVSNIFSFWGDSRGRQYQELPRCPAPTPSLLNIPLSSPGRRPRGDVESRLDALQRQLNRLETRLSADMATVLQLLQRQMTLVPPAYSAVTTPGPGPTSTSPLLPVSPLPTLTLDSLSQVSQFMACEELPPGAPELPQEGPTRRLSLPGQLGALTSQPLHRHGSDPGS

>AAQ91594.1 potassium channel HERG, partial [Homo sapiens]

TEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEE

>AAQ91599.1 potassium channel HERG, partial [Homo sapiens]

LIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWL

>AAQ91600.1 potassium channel HERG, partial [Homo sapiens]

LIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGW

>AAM09027.1 P-glycoprotein [Homo sapiens]

MVDENDIRALNVRHYRDHIGVVSQEPVLFGTTISNNIKYGRDDVTDEEMERAAREANAYDFIMEFPNKFNTLVGEKGAQMSGGQKQRIAIARALVRNPKILILDEATSALDSESKSAVQAALEKASKGRTTIVVAHRLSTIRSADLIVTLKDGMLAEKGAHAELMAKRGLYYSLVMSQDIKKADEQMESMTYSTERKTNSLPLHSVKSIKSDFIDKAEESTQSKEISLPEVSLLKILKLNKPEWPFVVLGTLASVLNGTVHPVFSIIFAKIITMFGNNDKTTLKHDAEIYSMIFVILGVICFVSYFMQGLFYGRAGEILTMRLRHLAFKAMLYQDIAWFDEKENSTGGLTTILAIDIAQIQGATGSRIGVLTQNATNMGLSVIISFIYGWEMTFLILSIAPVLAVTGMIETAAMTGFANKDKQELKHAGKIATEALENIRTIVSLTREKAFEQMYEEMLQTQHRNTSKKAQIIGSCYAFSHAFIYFAYAAGFRFGAYLIQAGRMTPEGMFIVFTAIAYGAMAIGKTLVLAPEYSKAKSGAAHLFALLEKKPNIDSRSQEGKKPDTCEGNLEFREVSFFYPCRPDVFILRGLSLSIERGKTVAFVGSSGCGKSTSVQLLQRLYDPVQGQVLFDGVDAKELNVQWLRSQIAIVPQEPVLFNCSIAENIAYGDNSRVVPLDEIKEAANAANIHSFIEGLPEKYNTQVGLKGAQLSGGQKQRLAIARALLQKPKILLLDEATSALDNDSEKVVQHALDKARTGRTCLVVTHRLSAIQNADLIVVLHNGKIKEQGTHQELLRNRDIYFKLVNAQSVQ

>NP\_000729.2 muscarinic acetylcholine receptor M1 [Homo sapiens]

MNTSAPPAVSPNITVLAPGKGPWQVAFIGITTGLLSLATVTGNLLVLISFKVNTELKTVNNYFLLSLACADLIIGTFSMNLYTTYLLMGHWALGTLACDLWLALDYVASNASVMNLLLISFDRYFSVTRPLSYRAKRTPRRAALMIGLAWLVSFVLWAPAILFWQYLVGERTVLAGQCYIQFLSQPIITFGTAMAAFYLPVTVMCTLYWRIYRETENRARELAALQGSETPGKGGGSSSSSERSQPGAEGSPETPPGRCCRCCRAPRLLQAYSWKEEEEEDEGSMESLTSSEGEEPGSEVVIKMPMVDPEAQAPTKQPPRSSPNTVKRPTKKGRDRAGKGQKPRGKEQLAKRKTFSLVKEKKAARTLSAILLAFILTWTPYNIMVLVSTFCKDCVPETLWELGYWLCYVNSTINPMCYALCNKAFRDTFRLLLLCRWDKRRWRKIPKRPGSVHRTPSRQC

>NP\_938150.1 insulin induced gene 1 isoform 2 [Homo sapiens]

MPRLHDHFWSCSCAHSARRRGPPRASAAGLAAKVGEMINVSVSGPSLLAAHGAPDADPAPRGRSAAMSGPEPGSPYPNTWHHRLLQRSLVLFSVGVVLALVLNLLQIQRNVTLFPEEVIATIFSSAWWVPPCCGTAAAVVGLLYPCIDSHLGEPHKFKREWASVMRCIAVFVGINHASAKLDFANNVQLSLTLAALSLGLWWTFDRSRSGLGLGITIAFLATLITQFLVYNGVYQYTSPDFLYIRSWLPCIFFSGGVTVGNIGRQLAMLIPFCEELNLKTTWLFHKTRSNYRVFLKSPIVIESSKPPILRARKILEENLTVDYDKDYLFS

>NP\_938151.1 insulin-induced gene 1 protein isoform 3 [Homo sapiens]

MPRLHDHFWSCSCAHSARRRGPPRASAAGLAAKVGEMINVSVSGPSLLAAHGAPDADPAPRGRSAAMSGPEPGSPYPNTWHHRLLQRSLVLFSVGVVLALVLNLLQIQRNVTLFPEEVIATIFSSAWWVPPCCGTAAGIHPQISSIFVLGSLVYFSQEASRWGT

>CAE82156.1 potassium voltage-gated channel, subfamily H (eag-related), member 2 [Homo sapiens]

MAAPAGKASRTGALRPRAQKGRVRRAVRISSLVAQEVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGMGWGAGTGLEMPSAASRGASLLNMQSLGLWTWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGSHILLPFRIRHKQTLFASLK

>NP\_002063.2 guanine nucleotide-binding protein G(q) subunit alpha [Homo sapiens]

MTLESIMACCLSEEAKEARRINDEIERQLRRDKRDARRELKLLLLGTGESGKSTFIKQMRIIHGSGYSDEDKRGFTKLVYQNIFTAMQAMIRAMDTLKIPYKYEHNKAHAQLVREVDVEKVSAFENPYVDAIKSLWNDPGIQECYDRRREYQLSDSTKYYLNDLDRVADPAYLPTQQDVLRVRVPTTGIIEYPFDLQSVIFRMVDVGGQRSERRKWIHCFENVTSIMFLVALSEYDQVLVESDNENRMEESKALFRTIITYPWFQNSSVILFLNKKDLLEEKIMYSHLVDYFPEYDGPQRDAQAAREFILKMFVDLNPDSDKIIYSHFTCATDTENIRFVFAAVKDTILQLNLKEYNLV

>AAR83914.1 unknown [Homo sapiens]

MKKSTLFRYSPDS

>AAR91622.1 P-glycoprotein 1, partial [Homo sapiens]

MDLEGDRNGGAKKKNFFKLNNK

>AAR99172.1 P-glycoprotein, partial [Homo sapiens]

KPSIDSYSKSGHKPDNIKGNLEFRNVHFSYPSRKEVKILKGLNLKVQSGQTVALVGNSGCGKSTTVQLMQRLYDPTEGMLPFQLQMYESHTYFLFQVSVDGQDIRTINVRFLREIIGVVSQEPVLFATTIAENIRYGRENVTMDEIEKAVKEANAYDFIMKLPH

>NP\_000738.2 acetylcholine receptor subunit beta precursor [Homo sapiens]

MTPGALLMLLGALGAPLAPGVRGSEAEGRLREKLFSGYDSSVRPAREVGDRVRVSVGLILAQLISLNEKDEEMSTKVYLDLEWTDYRLSWDPAEHDGIDSLRITAESVWLPDVVLLNNNDGNFDVALDISVVVSSDGSVRWQPPGIYRSSCSIQVTYFPFDWQNCTMVFSSYSYDSSEVSLQTGLGPDGQGHQEIHIHEGTFIENGQWEIIHKPSRLIQPPGDPRGGREGQRQEVIFYLIIRRKPLFYLVNVIAPCILITLLAIFVFYLPPDAGEKMGLSIFALLTLTVFLLLLADKVPETSLSVPIIIKYLMFTMVLVTFSVILSVVVLNLHHRSPHTHQMPLWVRQIFIHKLPLYLRLKRPKPERDLMPEPPHCSSPGSGWGRGTDEYFIRKPPSDFLFPKPNRFQPELSAPDLRRFIDGPNRAVALLPELREVVSSISYIARQLQEQEDHDALKEDWQFVAMVVDRLFLWTFIIFTSVGTLVIFLDATYHLPPPDPFP

>AAH01914.2 KCNH2 protein, partial [Homo sapiens]

VMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGMGWGAGTGLEMPSAASRGASLLNMQSLGLWTWDCLQGHWAPLIHLNSGPPSGAMERSPTWGEAAELWGSHILLPFRIRHKQTLFASLK

>NP\_996759.1 serine/threonine-protein phosphatase PP1-beta catalytic subunit isoform 1 [Homo sapiens]

MADGELNVDSLITRLLEVRGCRPGKIVQMTEAEVRGLCIKSREIFLSQPILLELEAPLKICGDIHGQYTDLLRLFEYGGFPPEANYLFLGDYVDRGKQSLETICLLLAYKIKYPENFFLLRGNHECASINRIYGFYDECKRRFNIKLWKTFTDCFNCLPIAAIVDEKIFCCHGGLSPDLQSMEQIRRIMRPTDVPDTGLLCDLLWSDPDKDVQGWGENDRGVSFTFGADVVSKFLNRHDLDLICRAHQVVEDGYEFFAKRQLVTLFSAPNYCGEFDNAGGMMSVDETLMCSFQILKPSEKKAKYQYGGLNSGRPVTPPRTANPPKKR

>sp|Q9NS86.1|LANC2\_HUMAN RecName: Full=LanC-like protein 2; AltName: Full=Testis-specific adriamycin sensitivity protein

MGETMSKRLKLHLGGEAEMEERAFVNPFPDYEAAAGALLASGAAEETGCVRPPATTDEPGLPFHQDGKIIHNFIRRIQTKIKDLLQQMEEGLKTADPHDCSAYTGWTGIALLYLQLYRVTCDQTYLLRSLDYVKRTLRNLNGRRVTFLCGDAGPLAVGAVIYHKLRSDCESQECVTKLLQLQRSVVCQESDLPDELLYGRAGYLYALLYLNTEIGPGTVCESAIKEVVNAIIESGKTLSREERKTERCPLLYQWHRKQYVGAAHGMAGIYYMLMQPAAKVDQETLTEMVKPSIDYVRHKKFRSGNYPSSLSNETDRLVHWCHGAPGVIHMLMQAYKVFKEEKYLKEAMECSDVIWQRGLLRKGYGICHGTAGNGYSFLSLYRLTQDKKYLYRACKFAEWCLDYGAHGCRIPDRPYSLFEGMAGAIHFLSDVLGPETSRFPAFELDSSKRD

>AAT47159.1 constitutive androstane receptor SV1, partial [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47160.1 constitutive androstane receptor SV2 [Homo sapiens]

MASREDELRNCVENSQQKHWSHLPLCWKL

>AAT47165.1 constitutive androstane receptor SV7, partial [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47166.1 constitutive androstane receptor SV8, partial [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47168.1 constitutive androstane receptor SV10 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDTSSSSVHPSPALAHPGPCAASGHTLRRHQHFHGTASHQVY

>AAT47169.1 constitutive androstane receptor SV11, partial [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47170.1 constitutive androstane receptor SV12, partial [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47171.1 constitutive androstane receptor SV13, partial [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47172.1 constitutive androstane receptor SV14, partial [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47173.1 constitutive androstane receptor SV15, partial [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSG

>AAT47174.1 constitutive androstane receptor SV16, partial [Homo sapiens]

MARRPCSLPSPAHLEHPGYTGVG

>AAT47176.1 constitutive androstane receptor SV18 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDIPCPLKTRSPFSREQLWKSVTSYSIPLSVSKHKTSSAGLFATQLKMEPVTDLELPREMRLISCKRRWH

>AAT47178.1 constitutive androstane receptor SV20 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDIPCPLKTRSPFSREQLWKSVTSYSIPLSVSKHKTSSAGLFATQLKMEPVTDLELPREMRLISCKRRWH

>AAT47179.1 constitutive androstane receptor SV21 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDTSSSSVHPSPALAHPGPCAASGHTLRRHQHFHGTASHQVY

>AAT78421.1 Galphai2 protein [Homo sapiens]

MGCTVSAEDKAAAERSKMIDKNLREDGEKAAREVKLLLLGAGESGKSTIVKQMKIIHEDGYSEEECRQYRAVVYSNTIQSIMAIVKAMGNLQIDFADPSRADDARQLFALSCTAEEQGVLPDDLSGVIRRLWADHGVQACFGRSREYQLNDSAAYYLNDLERIAQSDYIPTQQDVLRTRVKTTGIVETHFTFKDLHFKMFDVGGQRSERKKWIHCFEGVTAIIFCVALSAYDLVLAEDEEMNRMHESMKLFDSICNNKWFTDTSIILFLNKKDLFEEKITHSPLTICFPEYTGANKYDEAASYIQSKFEDLNKRKDTKEIYTHFTCATDTKSRKLFRETYLKLSGPDQHPHPSPAPAPPLSSDSVP

>NP\_001003406.1 voltage-dependent T-type calcium channel subunit alpha-1I isoform b [Homo sapiens]

MAESASPPSSSAAAPAAEPGVTTEQPGPRSPPSSPPGLEEPLDGADPHVPHPDLAPIAFFCLRQTTSPRNWCIKMVCNPWFECVSMLVILLNCVTLGMYQPCDDMDCLSDRCKILQVFDDFIFIFFAMEMVLKMVALGIFGKKCYLGDTWNRLDFFIVMAGMVEYSLDLQNINLSAIRTVRVLRPLKAINRVPSMRILVNLLLDTLPMLGNVLLLCFFVFFIFGIIGVQLWAGLLRNRCFLEENFTIQGDVALPPYYQPEEDDEMPFICSLSGDNGIMGCHEIPPLKEQGRECCLSKDDVYDFGAGRQDLNASGLCVNWNRYYNVCRTGSANPHKGAINFDNIGYAWIVIFQVITLEGWVEIMYYVMDAHSFYNFIYFILLIIVGSFFMINLCLVVIATQFSETKQREHRLMLEQRQRYLSSSTVASYAEPGDCYEEIFQYVCHILRKAKRRALGLYQALQSRRQALGPEAPAPAKPGPHAKEPRHYQLCPQHSPLDATPHTLVQPIPATLASDPASCPCCQHEDGRRPSGLGSTDSGQEGSGSGSSAGGEDEADGDGARSSEDGASSELGKEEEEEEQADGAVWLCGDVWRETRAKLRGIVDSKYFNRGIMMAILVNTVSMGIEHHEQPEELTNILEICNVVFTSMFALEMILKLAAFGLFDYLRNPYNIFDSIIVIISIWEIVGQADGGLSVLRTFRLLRVLKLVRFMPALRRQLVVLMKTMDNVATFCMLLMLFIFIFSILGMHIFGCKFSLRTDTGDTVPDRKNFDSLLWAIVTVFQILTQEDWNVVLYNGMASTSPWASLYFVALMTFGNYVLFNLLVAILVEGFQAEGDANRSYSDEDQSSSNIEEFDKLQEGLDSSGDPKLCPIPMTPNGHLDPSLPLGGHLGPAGAAGPAPRLSLQPDPMLVALGSRKSSVMSLGRMSYDQRSLSSSRSSYYGPWGRSAAWASRRSSWNSLKHKPPSAEHESLLSAERGGGARVCEVAADEGPPRAAPLHTPHAHHIHHGPHLAHRHRHHRRTLSLDNRDSVDLAELVPAVGAHPRAAWRAAGPAPGHEDCNGRMPSIAKDVFTKMGDRGDRGEDEEEIDYTLCFRVRKMIDVYKPDWCEVREDWSVYLFSPENRFRVLCQTIIAHKLFDYVVLAFIFLNCITIALERPQIEAGSTERIFLTVSNYIFTAIFVGEMTLKVVSLGLYFGEQAYLRSSWNVLDGFLVFVSIIDIVVSLASAGGAKILGVLRVLRLLRTLRPLRVISRAPGLKLVVETLISSLKPIGNIVLICCAFFIIFGILGVQLFKGKFYHCLGVDTRNITNRSDCMAANYRWVHHKYNFDNLGQALMSLFVLASKDGWVNIMYNGLDAVAVDQQPVTNHNPWMLLYFISFLLIVSFFVLNMFVGVVVENFHKCRQHQEAEEARRREEKRLRRLEKKRRKAQRLPYYATYCHTRLLIHSMCTSHYLDIFITFIICLNVVTMSLEHYNQPTSLETALKYCNYMFTTVFVLEAVLKLVAFGLRRFFKDRWNQLDLAIVLLSVMGITLEEIEINAALPINPTIIRIMRVLRIARVLKLLKMATGMRALLDTVVQALPQVGNLGLLFMLLFFIYAALGVELFGKLVCNDENPCEGMSRHATFENFGMAFLTLFQVSTGDNWNGIMKDTLRDCTHDERSCLSSLQFVSPLYFVSFVLTAQFVLINVVVAVLMKHLDDSNKEAQEDAEMDAELELEMAHGLGPGPRLPTGSPGAPGRGPGGAGGGGDTEGGLCRRCYSPAQENLWLDSVSLIIKDSLEGELTIIDNLSGSIFHHYSSPAGCKKCHHDKQEVQLAETEAFSLNSDRSSSILLGDDLSLEDPTACPPGRKDSKGELDPPEPMRVGDLGECFFPLSSTAVSPDPENFLCEMEEIPFNPVRSWLKHDSSQAPPSPFSPDASSPLLPMPAEFFHPAVSASQKGPEKGTGTGTLPKIALQGSWASLRSPRVNCTLLRQATGSDTSLDASPSSSAGSLQTTLEDSLTLSDSPRRALGPPAPAPGPRAGLSPAARRRLSLRGRGLFSLRGLRAHQRSHSSGGSTSPGCTHHDSMDPSDEEGRGGAGGGGAGSEHSETLSSLSLTSLFCPPPPPPAPGLTPARKFSSTSSLAAPGRPHAAALAHGLARSPSWAADRSKDPPGRAPLPMGLGPLAPPPQPLPGELEPGDAASKRKR

>sp|P63092.1|GNAS2\_HUMAN RecName: Full=Guanine nucleotide-binding protein G(s) subunit alpha isoforms short; AltName: Full=Adenylate cyclase-stimulating G alpha protein

MGCLGNSKTEDQRNEEKAQREANKKIEKQLQKDKQVYRATHRLLLLGAGESGKSTIVKQMRILHVNGFNGEGGEEDPQAARSNSDGEKATKVQDIKNNLKEAIETIVAAMSNLVPPVELANPENQFRVDYILSVMNVPDFDFPPEFYEHAKALWEDEGVRACYERSNEYQLIDCAQYFLDKIDVIKQADYVPSDQDLLRCRVLTSGIFETKFQVDKVNFHMFDVGGQRDERRKWIQCFNDVTAIIFVVASSSYNMVIREDNQTNRLQEALNLFKSIWNNRWLRTISVILFLNKQDLLAEKVLAGKSKIEDYFPEFARYTTPEDATPEPGEDPRVTRAKYFIRDEFLRISTASGDGRHYCYPHFTCAVDTENIRRVFNDCRDIIQRMHLRQYELL

>NP\_001005291.1 sterol regulatory element-binding protein 1 isoform 1 [Homo sapiens]

MDEPPFSEAALEQALGEPCDLDAALLTDIEGEVGAGRGRANGLDAPRAGADRGAMDCTFEDMLQLINNQDSDFPGLFDPPYAGSGAGGTDPASPDTSSPGSLSPPPATLSSSLEAFLSGPQAAPSPLSPPQPAPTPLKMYPSMPAFSPGPGIKEESVPLSILQTPTPQPLPGALLPQSFPAPAPPQFSSTPVLGYPSPPGGFSTGSPPGNTQQPLPGLPLASPPGVPPVSLHTQVQSVVPQQLLTVTAAPTAAPVTTTVTSQIQQVPVLLQPHFIKADSLLLTAMKTDGATVKAAGLSPLVSGTTVQTGPLPTLVSGGTILATVPLVVDAEKLPINRLAAGSKAPASAQSRGEKRTAHNAIEKRYRSSINDKIIELKDLVVGTEAKLNKSAVLRKAIDYIRFLQHSNQKLKQENLSLRTAVHKSKSLKDLVSACGSGGNTDVLMEGVKTEVEDTLTPPPSDAGSPFQSSPLSLGSRGSGSGGSGSDSEPDSPVFEDSKAKPEQRPSLHSRGMLDRSRLALCTLVFLCLSCNPLASLLGARGLPSPSDTTSVYHSPGRNVLGTESRDGPGWAQWLLPPVVWLLNGLLVLVSLVLLFVYGEPVTRPHSGPAVYFWRHRKQADLDLARGDFAQAAQQLWLALRALGRPLPTSHLDLACSLLWNLIRHLLQRLWVGRWLAGRAGGLQQDCALRVDASASARDAALVYHKLHQLHTMGKHTGGHLTATNLALSALNLAECAGDAVSVATLAEIYVAAALRVKTSLPRALHFLTRFFLSSARQACLAQSGSVPPAMQWLCHPVGHRFFVDGDWSVLSTPWESLYSLAGNPVDPLAQVTQLFREHLLERALNCVTQPNPSPGSADGDKEFSDALGYLQLLNSCSDAAGAPAYSFSISSSMATTTGVDPVAKWWASLTAVVIHWLRRDEEAAERLCPLVEHLPRVLQESERPLPRAALHSFKAARALLGCAKAESGPASLTICEKASGYLQDSLATTPASSSIDKAVQLFLCDLLLVVRTSLWRQQQPPAPAPAAQGTSSRPQASALELRGFQRDLSSLRRLAQSFRPAMRRVFLHEATARLMAGASPTRTHQLLDRSLRRRAGPGGKGGAVAELEPRPTRREHAEALLLASCYLPPGFLSAPGQRVGMLAEAARTLEKLGDRRLLHDCQQMLMRLGGGTTVTSS

>NP\_036313.3 peptidyl-prolyl cis-trans isomerase FKBP8 isoform 1 [Homo sapiens]

MASCAEPSEPSAPLPAGVPPLEDFEVLDGVEDAEGEEEEEEEEEEEDDLSELPPLEDMGQPPAEEAEQPGALAREFLAAMEPEPAPAPAPEEWLDILGNGLLRKKTLVPGPPGSSRPVKGQVVTVHLQTSLENGTRVQEEPELVFTLGDCDVIQALDLSVPLMDVGETAMVTADSKYCYGPQGSRSPYIPPHAALCLEVTLKTAVDGPDLEMLTGQERVALANRKRECGNAHYQRADFVLAANSYDLAIKAITSSAKVDMTFEEEAQLLQLKVKCLNNLAASQLKLDHYRAALRSCSLVLEHQPDNIKALFRKGKVLAQQGEYSEAIPILRAALKLEPSNKTIHAELSKLVKKHAAQRSTETALYRKMLGNPSRLPAKCPGKGAWSIPWKWLFGATAVALGGVALSVVIAARN

>NP\_000773.2 1,25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial isoform 1 precursor [Homo sapiens]

MSSPISKSRSLAAFLQQLRSPRQPPRLVTSTAYTSPQPREVPVCPLTAGGETQNAAALPGPTSWPLLGSLLQILWKGGLKKQHDTLVEYHKKYGKIFRMKLGSFESVHLGSPCLLEALYRTESAYPQRLEIKPWKAYRDYRKEGYGLLILEGEDWQRVRSAFQKKLMKPGEVMKLDNKINEVLADFMGRIDELCDERGHVEDLYSELNKWSFESICLVLYEKRFGLLQKNAGDEAVNFIMAIKTMMSTFGRMMVTPVELHKSLNTKVWQDHTLAWDTIFKSVKACIDNRLEKYSQQPSADFLCDIYHQNRLSKKELYAAVTELQLAAVETTANSLMWILYNLSRNPQVQQKLLKEIQSVLPENQVPRAEDLRNMPYLKACLKESMRLTPSVPFTTRTLDKATVLGEYALPKGTVLMLNTQVLGSSEDNFEDSSQFRPERWLQEKEKINPFAHLPFGVGKRMCIGRRLAELQLHLALCWIVRKYDIQATDNEPVEMLHSGTLVPSRELPIAFCQR

>NP\_061332.2 B-cell receptor-associated protein 29 isoform b [Homo sapiens]

MTLQWAAVATFLYAEIGLILIFCLPFIPPQRWQKIFSFNVWGKIATFWNKAFLTIIILLIVLFLDAVREVRKYSSVHTIEKSSTSRPDAYEHTQMKLFRSQRNLYISGFSLFFWLVLRRLVTLITQLAKELSNKGVLKTQAENTNKAAKKFMEENEKLKRILKSHGKDEECVLEAENKKLVEDQEKLKTELRKTSDALSKAQNDVMEMKMQSERLSKEYDQLLKEHSELQDRLERGNKKRL

>NP\_001008405.1 B-cell receptor-associated protein 29 isoform a [Homo sapiens]

MTLQWAAVATFLYAEIGLILIFCLPFIPPQRWQKIFSFNVWGKIATFWNKAFLTIIILLIVLFLDAVREVRKYSSVHTIEKSSTSRPDAYEHTQMKLFRSQRNLYISGFSLFFWLVLRRLVTLITQLAKELSNKGVLKTQAENTNKAAKKFMEENEKLKRILKSHGKDEECVLEAENKKLVEDQEKLKTELRKTSDALSKAQNDVMEMKMQSERLSKEYDQLLKEHSELQHSSFGEFLSKRSHKNGSIGKQTGSRKGSFRKRQQEKTVNFIKDTCNILCQNDNFVMLASRKFKFRKMHYDRFVIFLMPHIGCIVMALSKYLMMFQIYCKVCIPALKKNISMLNTIFTY

>NP\_001008406.1 B-cell receptor-associated protein BAP29 isoform c [Homo sapiens]

MTLQWAAVATFLYAEIGLILIFCLPFIPPQRWQKIFSFNVWGKIATFWNKAFLTIIILLIVLFLDAVREVRKYSSVHTIEKSSTSRPDAYEHTQMKLFRSQRNLYISGFSLFFWLVLRRLVTLITQLAKELSNKGVLKTQAENTNKAAKKFMEENEKLKRILKSHGKDEECVLEAENKKLVEDQEKLKTELRKTSDALSKAQNDVMEMKMQSERLSKEYDQLLKEHSELQKQREILPHRRGESTVTTEAEIGVMEPQQRNADSHQKLEEAKNRFFPRASSSRSMALQIPIKLILDFLASRTMGINLLFQAIKFVIICYCCHSKLIQEHAGQICNGLN

>pdb|1XV9|C Chain C, Retinoic acid receptor RXR-alpha

NEDMPVERILEAELAVEPKTETYVEANMGLNPSSPNDPVTNICQAADKQLFTLVEWAKRIPHFSELPLDDQVILLRAGWNELLIASFSHRSIAVKDGILLATGLHVHRNSAHSAGVGAIFDRVLTELVSKMRDMQMDKTELGCLRAIVLFNPDSKGLSNPAEVEALREKVYASLEAYCKHKYPEQPGRFAKLLLRLPALRSIGLKCLEHLFFFKLIGDTPIDTFLMEMLEAPHQMT

>pdb|1XV9|D Chain D, Orphan nuclear receptor NR1I3

PVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>BAD93069.1 dopamine receptor D2 isoform long variant, partial [Homo sapiens]

RAWPPSGSTALMDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>pdb|1SKX|A Chain A, Orphan nuclear receptor PXR

MKKGHHHHHHGSERTGTQPLGVQGLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELCQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGI

>NP\_005679.2 multidrug resistance-associated protein 5 isoform 1 [Homo sapiens]

MKDIDIGKEYIIPSPGYRSVRERTSTSGTHRDREDSKFRRTRPLECQDALETAARAEGLSLDASMHSQLRILDEEHPKGKYHHGLSALKPIRTTSKHQHPVDNAGLFSCMTFSWLSSLARVAHKKGELSMEDVWSLSKHESSDVNCRRLERLWQEELNEVGPDAASLRRVVWIFCRTRLILSIVCLMITQLAGFSGPAFMVKHLLEYTQATESNLQYSLLLVLGLLLTEIVRSWSLALTWALNYRTGVRLRGAILTMAFKKILKLKNIKEKSLGELINICSNDGQRMFEAAAVGSLLAGGPVVAILGMIYNVIILGPTGFLGSAVFILFYPAMMFASRLTAYFRRKCVAATDERVQKMNEVLTYIKFIKMYAWVKAFSQSVQKIREEERRILEKAGYFQSITVGVAPIVVVIASVVTFSVHMTLGFDLTAAQAFTVVTVFNSMTFALKVTPFSVKSLSEASVAVDRFKSLFLMEEVHMIKNKPASPHIKIEMKNATLAWDSSHSSIQNSPKLTPKMKKDKRASRGKKEKVRQLQRTEHQAVLAEQKGHLLLDSDERPSPEEEEGKHIHLGHLRLQRTLHSIDLEIQEGKLVGICGSVGSGKTSLISAILGQMTLLEGSIAISGTFAYVAQQAWILNATLRDNILFGKEYDEERYNSVLNSCCLRPDLAILPSSDLTEIGERGANLSGGQRQRISLARALYSDRSIYILDDPLSALDAHVGNHIFNSAIRKHLKSKTVLFVTHQLQYLVDCDEVIFMKEGCITERGTHEELMNLNGDYATIFNNLLLGETPPVEINSKKETSGSQKKSQDKGPKTGSVKKEKAVKPEEGQLVQLEEKGQGSVPWSVYGVYIQAAGGPLAFLVIMALFMLNVGSTAFSTWWLSYWIKQGSGNTTVTRGNETSVSDSMKDNPHMQYYASIYALSMAVMLILKAIRGVVFVKGTLRASSRLHDELFRRILRSPMKFFDTTPTGRILNRFSKDMDEVDVRLPFQAEMFIQNVILVFFCVGMIAGVFPWFLVAVGPLVILFSVLHIVSRVLIRELKRLDNITQSPFLSHITSSIQGLATIHAYNKGQEFLHRYQELLDDNQAPFFLFTCAMRWLAVRLDLISIALITTTGLMIVLM

HGQIPPAYAGLAISYAVQLTGLFQFTVRLASETEARFTSVERINHYIKTLSLEAPARIKNKAPSPDWPQEGEVTFENAEMRYRENLPLVLKKVSFTIKPKEKIGIVGRTGSGKSSLGMALFRLVELSGGCIKIDGVRISDIGLADLRSKLSIIPQEPVLFSGTVRSNLDPFNQYTEDQIWDALERTHMKECIAQLPLKLESEVMENGDNFSVGERQLLCIARALLRHCKILILDEATAAMDTETDLLIQETIREAFADCTMLTIAHRLHTVLGSDRIMVLAQGQVVEFDTPSVLLSNDSSRFYAMFAAAENKVAVKG

>NP\_001018881.1 multidrug resistance-associated protein 5 isoform 2 [Homo sapiens]

MKDIDIGKEYIIPSPGYRSVRERTSTSGTHRDREDSKFRRTRPLECQDALETAARAEGLSLDASMHSQLRILDEEHPKGKYHHGLSALKPIRTTSKHQHPVDNAGLFSCMTFSWLSSLARVAHKKGELSMEDVWSLSKHESSDVNCRRLERLWQEELNEVGPDAASLRRVVWIFCRTRLILSIVCLMITQLAGFSGPNFQDGCILRSE

>NP\_001019820.1 calnexin isoform d precursor [Homo sapiens]

MEGKWLLCMLLVLGTAIVEAHDGHDDDVIDIEDDLDDVIEEVEDSKPDTTAPPSSPKVTYKAPVPTGEVYFADSFDRGTLSGWILSKAKKDDTDDEIAKYDGKWEVEEMKESKLPGDKGLVLMSRAKHHAISAKLNKPFLFDTKPLIVQYEVNFQNGIECGGAYVKLLSKTPELNLDQFHDKTPYTIMFGPDKCGEDYKLHFIFRHKNPKTGIYEEKHAKRPDADLKTYFTDKKTHLYTLILNPDNSFEILVDQSVVNSGNLLNDMTPPVNPSREIEDPEDRKPEDWDERPKIPDPEAVKPDDWDEDAPAKIPDEEATKPEGWLDDEPEYVPDPDAEKPEDWDEDMDGEWEAPQIANPRCESAPGCGVWQRPVIDNPNYKGKWKPPMIDNPSYQGIWKPRKIPNPDFFEDLEPFRMTPFSAIGLELWSMTSDIFFDNFIICADRRIVDDWANDGWGLKKAADGAAEPGVVGQMIEAAEERPWLWVVYILTVALPVFLVILFCCSGKKQTSGMEYKKTDAPQPDVKEEEEEKEEEKDKGDEEEEGEEKLEEKQKSDAEEDGGTVSQEEEDRKPKAEEDEILNRSPRNRKPRRE

>NP\_001025175.1 hepatocyte nuclear factor 4-alpha isoform 6 [Homo sapiens]

MVSVNAPLGAPVESSYDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGPCQAQEGRGWSGDSPGDRPHTVSSPLSSLASPLCRFGQVA

>NP\_787110.2 hepatocyte nuclear factor 4-alpha isoform 5 [Homo sapiens]

MVSVNAPLGAPVESSYDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGSPSDAPHAHHPLHPHLMQEHMGTNVIVANTMPTHLSNGQMCEWPRPRGQAATPETPQPSPPGGSGSEPYKLLPGAVATIVKPLSAIPQPTITKQEVI

>NP\_001025174.1 hepatocyte nuclear factor 4-alpha isoform 4 [Homo sapiens]

MVSVNAPLGAPVESSYDTSPSEGTNLNAPNSLGVSALCAICGDRATGKHYGASSCDGCKGFFRRSVRKNHMYSCRFSRQCVVDKDKRNQCRYCRLKKCFRAGMKKEAVQNERDRISTRRSSYEDSSLPSINALLQAEVLSRQITSPVSGINGDIRAKKIASIADVCESMKEQLLVLVEWAKYIPAFCELPLDDQVALLRAHAGEHLLLGATKRSMVFKDVLLLGNDYIVPRHCPELAEMSRVSIRILDELVLPFQELQIDDNEYAYLKAIIFFDPDAKGLSDPGKIKRLRSQVQVSLEDYINDRQYDSRGRFGELLLLLPTLQSITWQMIEQIQFIKLFGMAKIDNLLQEMLLGGSPSDAPHAHHPLHPHLMQEHMGTNVIVANTMPTHLSNGQMSTPETPQPSPPGGSGSEPYKLLPGAVATIVKPLSAIPQPTITKQEVI

>AAZ40507.1 potassium channel HERG1, partial [Homo sapiens]

MPVRRGHVAPQNTFLDTIIRKFEGQSRKFIIANAR

>NP\_001028750.1 serine/threonine-protein kinase Sgk3 isoform 1 [Homo sapiens]

MQRDHTMDYKESCPSVSIPSSDEHREKKKRFTVYKVLVSVGRSEWFVFRRYAEFDKLYNTLKKQFPAMALKIPAKRIFGDNFDPDFIKQRRAGLNEFIQNLVRYPELYNHPDVRAFLQMDSPKHQSDPSEDEDERSSQKLHSTSQNINLGPSGNPHAKPTDFDFLKVIGKGSFGKVLLAKRKLDGKFYAVKVLQKKIVLNRKEQKHIMAERNVLLKNVKHPFLVGLHYSFQTTEKLYFVLDFVNGGELFFHLQRERSFPEHRARFYAAEIASALGYLHSIKIVYRDLKPENILLDSVGHVVLTDFGLCKEGIAISDTTTTFCGTPEYLAPEVIRKQPYDNTVDWWCLGAVLYEMLYGLPPFYCRDVAEMYDNILHKPLSLRPGVSLTAWSILEELLEKDRQNRLGAKEDFLEIQNHPFFESLSWADLVQKKIPPPFNPNVAGPDDIRNFDTAFTEETVPYSVCVSSDYSIVNASVLEADDAFVGFSYAPPSEDLFL

>sp|Q86UW7.2|CAPS2\_HUMAN RecName: Full=Calcium-dependent secretion activator 2; AltName: Full=Calcium-dependent activator protein for secretion 2; Short=CAPS-2

MLDPSSSEEESDEGLEEESRDVLVAAGSSQRAPPAPTREGRRDAPGRAGGGGAARSVSPSPSVLSEGRDEPQRQLDDEQERRIRLQLYVFVVRCIAYPFNAKQPTDMARRQQKLNKQQLQLLKERFQAFLNGETQIVADEAFCNAVRSYYEVFLKSDRVARMVQSGGCSANDFREVFKKNIEKRVRSLPEIDGLSKETVLSSWIAKYDAIYRGEEDLCKQPNRMALSAVSELILSKEQLYEMFQQILGIKKLEHQLLYNACQLDNADEQAAQIRRELDGRLQLADKMAKERKFPKFIAKDMENMYIEELRSSVNLLMANLESLPVSKGGPEFKLQKLKRSQNSAFLDIGDENEIQLSKSDVVLSFTLEIVIMEVQGLKSVAPNRIVYCTMEVEGEKLQTDQAEASRPQWGTQGDFTTTHPRPVVKVKLFTESTGVLALEDKELGRVILYPTSNSSKSAELHRMVVPKNSQDSDLKIKLAVRMDKPAHMKHSGYLYALGQKVWKRWKKRYFVLVQVSQYTFAMCSYREKKSEPQELMQLEGYTVDYTDPHPGLQGGCMFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSYKPVPAIQTQKLNPKGGTLHADAQLSGKDADRFQKHGMDEFISANPCKLDHAFLFRILQRQTLDHRLNDSYSCLGWFSPGQVFVLDEYCARYGVRGCHRHLCYLAELMEHSENGAVIDPTLLHYSFAFCASHVHGNRPDGIGTVSVEEKERFEEIKERLSSLLENQISHFRYCFPFGRPEGALKATLSLLERVLMKDIATPIPAEEVKKVVRKCLEKAALINYTRLTEYAKIEETMNQASPARKLEEILHLAELCIEVLQQNEEHHAEGREAFAWWPDLLAEHAEKFWALFTVDMDTALEAQPQDSWDSFPLFQLLNNFLRNDTLLCNGKFHKHLQEIFVPLVVRYVDLMESSIAQSIHRGFEQETWQPVKNIANSLPNVALPKVPSLPLNLPQIPNISTASWMPSLYESTNGSATSEDLFWKLDALQMFVFDLHWPEQEFAHHLEQRLKLMASDMLEACVKRTRTAFELKLQKASKTTDLRIPASVCTMFNVLVDAKKQSTKLCALDGGQEQQYHSKIDDLIDNSVKEIISLLVSKFVSVLEGVLSKLSRYDEGTFFSSILSFTVKAAAKYVDVPKPGMDLADTYIMFVRQNQDILREKVNEEMYIEKLFDQWYSSSMKVICVWLTDRLDLQLHIYQLKTLIKIVKKTYRDFRLQGVLEGTLNSKTYDTVHRRLTVEEATASVSEGGGLQGITMKDSDEEEEG

>NP\_001034556.1 regulator of G-protein signaling 19 [Homo sapiens]

MPTPHEAEKQITGPEEADRPPSMSSHDTASPAAPSRNPCCLCWCCCCSCSWNQERRRAWQASRESKLQPLPSCEVCATPSPEEVQSWAQSFDKLMHSPAGRSVFRAFLRTEYSEENMLFWLACEELKAEANQHVVDEKARLIYEDYVSILSPKEVSLDSRVREGINKKMQEPSAHTFDDAQLQIYTLMHRDSYPRFLSSPTYRALLLQGPSQSSSEA

>NP\_000787.2 D(3) dopamine receptor isoform a [Homo sapiens]

MASLSQLSGHLNYTCGAENSTGASQARPHAYYALSYCALILAIVFGNGLVCMAVLKERALQTTTNYLVVSLAVADLLVATLVMPWVVYLEVTGGVWNFSRICCDVFVTLDVMMCTASILNLCAISIDRYTAVVMPVHYQHGTGQSSCRRVALMITAVWVLAFAVSCPLLFGFNTTGDPTVCSISNPDFVIYSSVVSFYLPFGVTVLVYARIYVVLKQRRRKRILTRQNSQCNSVRPGFPQQTLSPDPAHLELKRYYSICQDTALGGPGFQERGGELKREEKTRNSLSPTIAPKLSLEVRKLSNGRLSTSLKLGPLQPRGVPLREKKATQMVAIVLGAFIVCWLPFFLTHVLNTHCQTCHVSPELYSATTWLGYVNSALNPVIYTTFNIEFRKAFLKILSC

>NP\_387512.3 D(3) dopamine receptor isoform e [Homo sapiens]

MASLSQLSGHLNYTCGAENSTGASQARPHAYYALSYCALILAIVFGNGLVCMAVLKERALQTTTNYLVVSLAVADLLVATLVMPWVVYLEVTGGVWNFSRICCDVFVTLDVMMCTASILNLCAISIDRYTAVVMPVHYQHGTGQSSCRRVALMITAVWVLAFAVSCPLLFGFNTTGDPTVCSISNPDFVIYSSVVSFYLPFGVTVLVYARIYVVLKQRRRKRILTRQNSQCNSVRPGFPQQTLSPDPAHLELKRYYSICQDTALGGPGFQERGGELKREEKTRNSLMPLREKKATQMVAIVLGAFIVCWLPFFLTHVLNTHCQTCHVSPELYSATTWLGYVNSALNPVIYTTFNIEFRKAFLKILSC

>NP\_060191.3 coiled-coil and C2 domain-containing protein 1A [Homo sapiens]

MHKRKGPPGPPGRGAAAARQLGLLVDLSPDGLMIPEDGANDEELEAEFLALVGGQPPALEKLKGKGPLPMEAIEKMASLCMRDPDEDEEEGTDEDDLEADDDLLAELNEVLGEEQKASETPPPVAQPKPEAPHPGLETTLQERLALYQTAIESARQAGDSAKMRRYDRGLKTLENLLASIRKGNAIDEADIPPPVAIGKGPASTPTYSPAPTQPAPRIASAPEPRVTLEGPSATAPASSPGLAKPQMPPGPCSPGPLAQLQSRQRDYKLAALHAKQQGDTTAAARHFRVAKSFDAVLEALSRGEPVDLSCLPPPPDQLPPDPPSPPSQPPTPATAPSTTEVPPPPRTLLEALEQRMERYQVAAAQAKSKGDQRKARMHERIVKQYQDAIRAHKAGRAVDVAELPVPPGFPPIQGLEATKPTQQSLVGVLETAMKLANQDEGPEDEEDEVPKKQNSPVAPTAQPKAPPSRTPQSGSAPTAKAPPKATSTRAQQQLAFLEGRKKQLLQAALRAKQKNDVEGAKMHLRQAKGLEPMLEASRNGLPVDITKVPPAPVNKDDFALVQRPGPGLSQEAARRYGELTKLIRQQHEMCLNHSNQFTQLGNITETTKFEKLAEDCKRSMDILKQAFVRGLPTPTARFEQRTFSVIKIFPDLSSNDMLLFIVKGINLPTPPGLSPGDLDVFVRFDFPYPNVEEAQKDKTSVIKNTDSPEFKEQFKLCINRSHRGFRRAIQTKGIKFEVVHKGGLFKTDRVLGTAQLKLDALEIACEVREILEVLDGRRPTGGRLEVMVRIREPLTAQQLETTTERWLVIDPVPAAVPTQVAGPKGKAPPVPAPARESGNRSARPLHSLSVLAFDQERLERKILALRQARRPVPPEVAQQYQDIMQRSQWQRAQLEQGGVGIRREYAAQLERQLQFYTEAARRLGNDGSRDAAKEALYRRNLVESELQRLRR

>ABF71886.1 voltage-gated potassium channel KV11.1 transcript variant 1 [Homo sapiens]

MPVRRGHVAPQSTFLDTIIRKFEGQSRKFIIANARVENCAVIYCNDGFCELCGYSRAEVMQRPCTCDFLHGPRTQRRAAAQIAQALLGAEERKVEIAFYRKDGSCFLCLVDVVPVKNEDGAVIMFILNFEVVMEKDMVGSPAHDTNHRGPPTSWLAPGRAKTFRLKLPALLALTARESSVRSGGAGGAGAPGAVVVDVDLTPAAPSSESLALDEVTAMDNHVAGLGPAEERRALVGPGSPPRSAPGQLPSPRAHSLNPDASGSSCSLARTRSRESCASVRRASSADDIEAMRAGVLPPPPRHASTGAMHPLRSGLLNSTSDSDLVRYRTISKIPQITLNFVDLKGDPFLASPTSDREIIAPKIKERTHNVTEKVTQVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQRLEEYFQHAWSYTNGIDMNAVLKGFPECLQADICLHLNRSLLQHCKPFRGATKGCLRALAMKFKTTHAPPGDTLVHAGDLLTALYFISRGSIEILRGDVVVAILGKNDIFGEPLNLYARPGKSNGDVRALTYCDLHKIHRDDLLEVLDMYPEFSDHFWSSLEITFNLRDTNMIPGSPGSTELEGGFSRQRKRKLSFRRRTDTDTEQPGEVSALGPGRAGAGPSSRGRPGGPWGESPSSGPSSPESSEDEGPGRSSSPLRLVPFSSPRPPGEPPGGEPLMEDCEKSSDTCNPLSGAFSGVSNIFSFWGDSRGRQYQELPRCPAPTPSLLNIPLSSPGRRPRGDVESRLDALQRQLNRLETRLSADMATVLQLLQRQMTLVPPAYSAVTTPGPGPTSTSPLLPVSPLPTLTLDSLSQVSQFMACEELPPGAPELPQEGPTRRLSLPGQLGALTSQPLHRHGSDPGS

>NP\_150646.3 alpha-1A adrenergic receptor isoform 2 [Homo sapiens]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARTKSRSVTRLECSGMILAHCNLRLPGSRDSPASASQAAGTTGMCHQADATRPS

>NP\_150645.2 alpha-1A adrenergic receptor isoform 3 [Homo sapiens]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARGHTPMT

>NP\_150647.2 alpha-1A adrenergic receptor isoform 4 [Homo sapiens]

MVFLSGNASDSSNCTQPPAPVNISKAILLGVILGGLILFGVLGNILVILSVACHRHLHSVTHYYIVNLAVADLLLTSTVLPFSAIFEVLGYWAFGRVFCNIWAAVDVLCCTASIMGLCIISIDRYIGVSYPLRYPTIVTQRRGLMALLCVWALSLVISIGPLFGWRQPAPEDETICQINEEPGYVLFSALGSFYLPLAIILVMYCRVYVVAKRESRGLKSGLKTDKSDSEQVTLRIHRKNAPAGGSGMASAKTKTHFSVRLLKFSREKKAAKTLGIVVGCFVLCWLPFFLVMPIGSFFPDFKPSETVFKIVFWLGYLNSCINPIIYPCSSQEFKKAFQNVLRIQCLCRKQSSKHALGYTLHPPSQAVEGQHKDMVRIPVGSRETFYRISKTDGVCEWKFFSSMPRGSARITVSKDQSSCTTARRGMDCRYFTKNCREHIKHVNFMMPPWRKGSEC

>NP\_002058.2 guanine nucleotide-binding protein subunit alpha-11 [Homo sapiens]

MTLESMMACCLSDEVKESKRINAEIEKQLRRDKRDARRELKLLLLGTGESGKSTFIKQMRIIHGAGYSEEDKRGFTKLVYQNIFTAMQAMIRAMETLKILYKYEQNKANALLIREVDVEKVTTFEHQYVSAIKTLWEDPGIQECYDRRREYQLSDSAKYYLTDVDRIATLGYLPTQQDVLRVRVPTTGIIEYPFDLENIIFRMVDVGGQRSERRKWIHCFENVTSIMFLVALSEYDQVLVESDNENRMEESKALFRTIITYPWFQNSSVILFLNKKDLLEDKILYSHLVDYFPEFDGPQRDAQAAREFILKMFVDLNPDSDKIIYSHFTCATDTENIRFVFAAVKDTILQLNLKEYNLV

>sp|Q2M3G0.2|ABCB5\_HUMAN RecName: Full=ATP-binding cassette sub-family B member 5; AltName: Full=ABCB5 P-gp; AltName: Full=P-glycoprotein ABCB5

MVDENDIRALNVRHYRDHIGVVSQEPVLFGTTISNNIKYGRDDVTDEEMERAAREANAYDFIMEFPNKFNTLVGEKGAQMSGGQKQRIAIARALVRNPKILILDEATSALDSESKSAVQAALEKASKGRTTIVVAHRLSTIRSADLIVTLKDGMLAEKGAHAELMAKRGLYYSLVMSQDIKKADEQMESMTYSTERKTNSLPLHSVKSIKSDFIDKAEESTQSKEISLPEVSLLKILKLNKPEWPFVVLGTLASVLNGTVHPVFSIIFAKIITMFGNNDKTTLKHDAEIYSMIFVILGVICFVSYFMQGLFYGRAGEILTMRLRHLAFKAMLYQDIAWFDEKENSTGGLTTILAIDIAQIQGATGSRIGVLTQNATNMGLSVIISFIYGWEMTFLILSIAPVLAVTGMIETAAMTGFANKDKQELKHAGKIATEALENIRTIVSLTREKAFEQMYEEMLQTQHRNTSKKAQIIGSCYAFSHAFIYFAYAAGFRFGAYLIQAGRMTPEGMFIVFTAIAYGAMAIGKTLVLAPEYSKAKSGAAHLFALLEKKPNIDSRSQEGKKPDTCEGNLEFREVSFFYPCRPDVFILRGLSLSIERGKTVAFVGSSGCGKSTSVQLLQRLYDPVQGQVLFDGVDAKELNVQWLRSQIAIVPQEPVLFNCSIAENIAYGDNSRVVPLDEIKEAANAANIHSFIEGLPEKYNTQVGLKGAQLSGGQKQRLAIARALLQKPKILLLDEATSALDNDSEKVVQHALDKARTGRTCLVVTHRLSAIQNADLIVVLHNGKIKEQGTHQELLRNRDIYFKLVNAQSVQ

>NP\_001070937.1 nuclear receptor subfamily 1 group I member 3 isoform 6 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070938.1 nuclear receptor subfamily 1 group I member 3 isoform 11 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070939.1 nuclear receptor subfamily 1 group I member 3 isoform 5 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070940.1 nuclear receptor subfamily 1 group I member 3 isoform 9 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070941.1 nuclear receptor subfamily 1 group I member 3 isoform 12 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070942.1 nuclear receptor subfamily 1 group I member 3 isoform 8 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070943.1 nuclear receptor subfamily 1 group I member 3 isoform 15 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070944.1 nuclear receptor subfamily 1 group I member 3 isoform 13 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070946.1 nuclear receptor subfamily 1 group I member 3 isoform 7 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070945.1 nuclear receptor subfamily 1 group I member 3 isoform 14 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRSPGTPWIHWSGKMLGPKIGPGSKGAQWLQ

>NP\_001070947.1 nuclear receptor subfamily 1 group I member 3 isoform 10 [Homo sapiens]

MLPKRSRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070948.1 nuclear receptor subfamily 1 group I member 3 isoform 2 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070949.1 nuclear receptor subfamily 1 group I member 3 isoform 4 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>NP\_001070950.1 nuclear receptor subfamily 1 group I member 3 isoform 1 [Homo sapiens]

MASREDELRNCVVCGDQATGYHFNALTCEGCKGFFRRTVSKSIGPTCPFAGSCEVSKTQRRHCPACRLQKCLDAGMRKDMILSAEALALRRAKQAQRRAQQTPVQLSKEQEELIRTLLGAHTRHMGTMFEQFVQFRPPAHLFIHHQPLPTLAPVLPLVTHFADINTFMVLQVIKFTKDLPVFRSLPIEDQISLLKGAAVEICHIVLNTTFCLQTQNFLCGPLRYTIEDGARVSPTVGFQVEFLELLFHFHGTLRKLQLQEPEYVLLAAMALFSPAPYLTDRPGVTQRDEIDQLQEEMALTLQSYIKGQQRRPRDRFLYAKLLGLLAELRSINEAYGYQIQHIQGLSAMMPLLQEICS

>AAI27674.1 KCNH2 protein [Homo sapiens]

MAAPAGKASRTGALRPRAQKGRVRRAVRISSLVAQEVLSLGADVLPEYKLQAPRIHRWTILHYSPFKAVWDWLILLLVIYTAVFTPYSAAFLLKETEEGPPATECGYACQPLAVVDLIVDIMFIVDILINFRTTYVNANEEVVSHPGRIAVHYFKGWFLIDMVAAIPFDLLIFGSGSEELIGLLKTARLLRLVRVARKLDRYSEYGAAVLFLLMCTFALIAHWLACIWYAIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKYVTALYFTFSSLTSVGFGNVSPNTNSEKIFSICVMLIGSLMYASIFGNVSAIIQRLYSGTARYHTQMLRVREFIRFHQIPNPLRQCCDHPGAWPHFHIPAVARQPPPHPHLGLAFSGFPVHGV

>EAW57795.1 modifier of the HERG potassium channel [Homo sapiens]

MAQLEGYCFSAALSCTFLVSCLLFSAFSRALREPYMDEIFHLPQAQRYCEGHFSLSQWDPMITTLPGLYLVSVGVVKPAIWIFGWSEHVVCSIGMLRFVNLLFSVGNFYLLYLLFHKVQPRNKAASSIQRVLSTLTLAVFPTLYFFNFLYYTEAGSMFFTLFAYLMCLYGNHKTSAFLGFCGFMFRQTNIIWAVFCAGNVIAQKLTEAWKTELQKKEDRLPPIKGPFAEFRKILQFLLAYSMSFKNLSMLFCLTWPYILLGFLFCAFVVVNGGIVIGDRSSHEACLHFPQLFYFFSFTLFFSFPHLLSPSKIKTFLSLVWKHGILFLVVTLVSVFLVWKFTYAHKYLLADNRHYTFYVWKRVFQRYAILKYLLVPAYIFAGWSIADSLKSKPIFWNLMFFICLFIVIVPQKLLEFRYFILPYVIYRLNITLPPTSRLVCELSCYAIVNFITFYIFLNKTFQWPNSQDIQRFMW

>EAW67219.1 dopamine receptor D2, isoform CRA\_a [Homo sapiens]

MRRELEASSSRRRLCPRAPYGLAWPPSGSTALMDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVSPLPLVQEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>EAW67223.1 dopamine receptor D2, isoform CRA\_d [Homo sapiens]

MRRELEASSSRRRLCPRAPYGLAWPPSGSTALMDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>EAW67225.1 dopamine receptor D2, isoform CRA\_e [Homo sapiens]

MRRELEASSSRRRLCPRAPYGLAWPPSGSTALMDPLNLSWYDDDLERQNWSRPFNGSDGKADRPHYNYYATLLTLLIAVIVFGNVLVCMAVSREKALQTTTNYLIVSLAVADLLVATLVMPWVVYLEVVGEWKFSRIHCDIFVTLDVMMCTASILNLCAISIDRYTAVAMPMLYNTRYSSKRRVTVMISIVWVLSFTISCPLLFGLNNADQNECIIANPAFVVYSSIVSFYVPFIVTLLVYIKIYIVLRRRRKRVNTKRSSRAFRAHLRAPLKGNCTHPEDMKLCTVIMKSNGSFPVNRRRVEAARRAQELEMEMLSSTSPPERTRYSPIPPSHHQLTLPDPSHHGLHSTPDSPAKPEKNGHAKDHPKIAKIFEIQTMPNGKTRTSLKTMSRRKLSQQKEKKATQMLAIVLGVFIICWLPFFITHILNIHCDCNIPPVLYSAFTWLGYVNSAVNPIIYTTFNIEFRKAFLKILHC

>pdb|2O9I|B Chain B, Orphan nuclear receptor PXR

GLTEEQRMMIRELMDAQMKTFDTTFSHFKNFRLPGVLSSGCELPESLQAPSREEAAKWSQVRKDLCSLKVSLQLRGEDGSVWNYKPPADSGGKEIFSLLPHMADMSTYMFKGIISFAKVISYFRDLPIEDQISLLKGAAFELSQLRFNTVFNAETGTWECGRLSYCLEDTAGGFQQLLLEPMLKFHYMLKKLQLHEEEYVLMQAISLFSPDRPGVLQHRVVDQLQEQFAITLKSYIECNRPQPAHRFLFLKIMAMLTELRSINAQHTQRLLRIQDIHPFATPLMQELFGITGS

>sp|P21439.2|MDR3\_HUMAN RecName: Full=Phosphatidylcholine translocator ABCB4; AltName: Full=ATP-binding cassette sub-family B member 4; AltName: Full=Multidrug resistance protein 3; AltName: Full=P-glycoprotein 3

MDLEAAKNGTAWRPTSAEGDFELGISSKQKRKKTKTVKMIGVLTLFRYSDWQDKLFMSLGTIMAIAHGSGLPLMMIVFGEMTDKFVDTAGNFSFPVNFSLSLLNPGKILEEEMTRYAYYYSGLGAGVLVAAYIQVSFWTLAAGRQIRKIRQKFFHAILRQEIGWFDINDTTELNTRLTDDISKISEGIGDKVGMFFQAVATFFAGFIVGFIRGWKLTLVIMAISPILGLSAAVWAKILSAFSDKELAAYAKAGAVAEEALGAIRTVIAFGGQNKELERYQKHLENAKEIGIKKAISANISMGIAFLLIYASYALAFWYGSTLVISKEYTIGNAMTVFFSILIGAFSVGQAAPCIDAFANARGAAYVIFDIIDNNPKIDSFSERGHKPDSIKGNLEFNDVHFSYPSRANVKILKGLNLKVQSGQTVALVGSSGCGKSTTVQLIQRLYDPDEGTINIDGQDIRNFNVNYLREIIGVVSQEPVLFSTTIAENICYGRGNVTMDEIKKAVKEANAYEFIMKLPQKFDTLVGERGAQLSGGQKQRIAIARALVRNPKILLLDEATSALDTESEAEVQAALDKAREGRTTIVIAHRLSTVRNADVIAGFEDGVIVEQGSHSELMKKEGVYFKLVNMQTSGSQIQSEEFELNDEKAATRMAPNGWKSRLFRHSTQKNLKNSQMCQKSLDVETDGLEANVPPVSFLKVLKLNKTEWPYFVVGTVCAIANGGLQPAFSVIFSEIIAIFGPGDDAVKQQKCNIFSLIFLFLGIISFFTFFLQGFTFGKAGEILTRRLRSMAFKAMLRQDMSWFDDHKNSTGALSTRLATDAAQVQGATGTRLALIAQNIANLGTGIIISFIYGWQLTLLLLAVVPIIAVSGIVEMKLLAGNAKRDKKELEAAGKIATEAIENIRTVVSLTQERKFESMYVEKLYGPYRNSVQKAHIYGITFSISQAFMYFSYAGCFRFGAYLIVNGHMRFRDVILVFSAIVFGAVALGHASSFAPDYAKAKLSAAHLFMLFERQPLIDSYSEEGLKPDKFEGNITFNEVVFNYPTRANVPVLQGLSLEVKKGQTLALVGSSGCGKSTVVQLLERFYDPLAGTVFVDFGFQLLDGQEAKKLNVQWLRAQLGIVSQEPILFDCSIAENIAYGDNSRVVSQDEIVSAAKAANIHPFIETLPHKYETRVGDKGTQLSGGQKQRIAIARALIRQPQILLLDEATSALDTESEKVVQEALDKAREGRTCIVIAHRLSTIQNADLIVVFQNGRVKEHGTHQQLLAQKGIYFSMVSVQAGTQNL

>NP\_115984.3 neurabin-2 [Homo sapiens]

MMKTEPRGPGGPLRSASPHRSAYEAGIQALKPPDAPGPDEAPKGAHHKKYGSNVHRIKSMFLQMGTTAGPSGEAGGGAGLAEAPRASERGVRLSLPRASSLNENVDHSALLKLGTSVSERVSRFDSKPAPSAQPAPPPHPPSRLQETRKLFERSAPAAAGGDKEAAARRLLRQERAGLQDRKLDVVVRFNGSTEALDKLDADAVSPTVSQLSAVFEKADSRTGLHRGPGLPRAAGVPQVNSKLVSKRSRVFQPPPPPPPAPSGDAPAEKERCPAGQQPPQHRVAPARPPPKPREVRKIKPVEVEESGESEAESAPGEVIQAEVTVHAALENGSTVATAASPAPEEPKAQAAPEKEAAAVAPPERGVGNGRAPDVAPEEVDESKKEDFSEADLVDVSAYSGLGEDSAGSALEEDDEDDEEDGEPPYEPESGCVEIPGLSEEEDPAPSRKIHFSTAPIQVFSTYSNEDYDRRNEDVDPMAASAEYELEKRVERLELFPVELEKDSEGLGISIIGMGAGADMGLEKLGIFVKTVTEGGAAHRDGRIQVNDLLVEVDGTSLVGVTQSFAASVLRNTKGRVRFMIGRERPGEQSEVAQLIQQTLEQERWQREMMEQRYAQYGEDDEETGEYATDEDEELSPTFPGGEMAIEVFELAENEDALSPVDMEPEKLVHKFKELQIKHAVTEAEIQQLKRKLQSLEQEKGRWRVEKAQLEQSVEENKERMEKLEGYWGEAQSLCQAVDEHLRETQAQYQALERKYSKAKRLIKDYQQKEIEFLKKETAQRRVLEESELARKEEMDKLLDKISELEGNLQTLRNSNST

>NP\_005151.2 beta-adrenergic receptor kinase 2 [Homo sapiens]

MADLEAVLADVSYLMAMEKSKATPAARASKRIVLPEPSIRSVMQKYLAERNEITFDKIFNQKIGFLLFKDFCLNEINEAVPQVKFYEEIKEYEKLDNEEDRLCRSRQIYDAYIMKELLSCSHPFSKQAVEHVQSHLSKKQVTSTLFQPYIEEICESLRGDIFQKFMESDKFTRFCQWKNVELNIHLTMNEFSVHRIIGRGGFGEVYGCRKADTGKMYAMKCLDKKRIKMKQGETLALNERIMLSLVSTGDCPFIVCMTYAFHTPDKLCFILDLMNGGDLHYHLSQHGVFSEKEMRFYATEIILGLEHMHNRFVVYRDLKPANILLDEHGHARISDLGLACDFSKKKPHASVGTHGYMAPEVLQKGTAYDSSADWFSLGCMLFKLLRGHSPFRQHKTKDKHEIDRMTLTVNVELPDTFSPELKSLLEGLLQRDVSKRLGCHGGGSQEVKEHSFFKGVDWQHVYLQKYPPPLIPPRGEVNAADAFDIGSFDEEDTKGIKLLDCDQELYKNFPLVISERWQQEVTETVYEAVNADTDKIEARKRAKNKQLGHEEDYALGKDCIMHGYMLKLGNPFLTQWQRRYFYLFPNRLEWRGEGESRQNLLTMEQILSVEETQIKDKKCILFRIKGGKQFVLQCESDPEFVQWKKELNETFKEAQRLLRRAPKFLNKPRSGTVELPKPSLCHRNSNGL

>NP\_001009571.2 calcium-dependent secretion activator 2 isoform b [Homo sapiens]

MLDPSSSEEESDEGLEEESRDVLVAAGSSQRAPPAPTREGRRDAPGRAGGGGAARSVSPSPSVLSEGRDEPQRQLDDEQERRIRLQLYVFVVRCIAYPFNAKQPTDMARRQQKLNKQQLQLLKERFQAFLNGETQIVADEAFCNAVRSYYEVFLKSDRVARMVQSGGCSANDFREVFKKNIEKRVRSLPEIDGLSKETVLSSWIAKYDAIYRGEEDLCKQPNRMALSAVSELILSKEQLYEMFQQILGIKKLEHQLLYNACQLDNADEQAAQIRRELDGRLQLADKMAKERKFPKFIAKDMENMYIEELRSSVNLLMANLESLPVSKGGPEFKLQKLKRSQNSAFLDIGDENEIQLSKSDVVLSFTLEIVIMEVQGLKSVAPNRIVYCTMEVEGEKLQTDQAEASRPQWGTQGDFTTTHPRPVVKVKLFTESTGVLALEDKELGRVILYPTSNSSKSAELHRMVVPKNSQDSDLKIKLAVRMDKPAHMKHSGYLYALGQKVWKRWKKRYFVLVQVSQYTFAMCSYREKKSEPQELMQLEGYTVDYTDPHPGLQGGCMFFNAVKEGDTVIFASDDEQDRILWVQAMYRATGQSYKPVPAIQTQKLNPKGGTLHADAQLYADRFQKHGMDEFISANPCKLDHAFLFRILQRQTLDHRLNDSYSCLGWFSPGQVFVLDEYCARYGVRGCHRHLCYLAELMEHSENGAVIDPTLLHYSFAFCASHVHGNRPDGIGTVSVEEKERFEEIKERLSSLLENQISHFRYCFPFGRPEGALKATLSLLERVLMKDIATPIPAEEVKKVVRKCLEKAALINYTRLTEYAKIEETMNQASPARKLEEILHLAELCIEVLQQNEEHHAEAFAWWPDLLAEHAEKFWALFTVDMDTALEAQPQDSWDSFPLFQLLNNFLRNDTLLCNGKFHKHLQEIFVPLVVRYVDLMESSIAQSIHRGFEQETWQPVNNGSATSEDLFWKLDALQMFVFDLHWPEQEFAHHLEQRLKLMASDMLEACVKRTRTAFELKLQKASKTTDLRIPASVCTMFNVLVDAKKQSTKLCALDGGQEFGSQWQQYHSKIDDLIDNSVKEIISLLVSKFVSVLEGVLSKLSRYDEGTFFSSILSFTVKAAAKYVDVPKPGMDLADTYIMFVRQNQDILREKVNEEMYIEKLFDQWYSSSMKVICVWLTDRLDLQLHIYQLKTLIKIVKKTYRDFRLQGVLEGTLNSKTYDTVHRRLTVEEATASVSEGGGLQGITMKDSDEEEEG

>NP\_001092881.1 G-protein coupled receptor-associated sorting protein 1 [Homo sapiens]

MTGAEIESGAQVKPEKKPGEEVVGGAEIENDVPLVVRPKVRTQAQIMPGARPKNKSKVMPGASTKVETSAVGGARPKSKAKAIPVSRFKEEAQMWAQPRFGAERLSKTERNSQTNIIASPLVSTDSVLVAKTKYLSEDRELVNTDTESFPRRKAHYQAGFQPSFRSKEETNMGSWCCPRPTSKQEASPNSDFKWVDKSVSSLFWSGDEVTAKFHPGNRVKDSNRSMHMANQEANTMSRSQTNQELYIASSSGSEDESVKTPWFWARDKTNTWSGPREDPNSRSRFRSKKEVYVESSSGSEHEDHLESWFGAGKEAKFRSKMRAGKEANNRARHRAKREACIDFMPGSIDVIKKESCFWPEENANTFSRPMIKKEARARAMTKEEAKTKARARAKQEARSEEEALIGTWFWATDESSMADEASIESSLQVEDESIIGSWFWTEEEASMGTGASSKSRPRTDGERIGDSLFGAREKTSMKTGAEATSESILAADDEQVIIGSWFWAGEEVNQEAEEETIFGSWFWVIDAASVESGVGVSCESRTRSEEEEVIGPWFWSGEQVDIEAGIGEEARPGAEEETIFGSWFWAENQTYMDCRAETSCDTMQGAEEEEPIIGSWFWTRVEACVEGDVNSKSSLEDKEEAMIPCFGAKEEVSMKHGTGVRCRFMAGAEETNNKSCFWAEKEPCMYPAGGGSWKSRPEEEEDIVNSWFWSRKYTKPEAIIGSWLWATEESNIDGTGEKAKLLTEEETIINSWFWKEDEAISEATDREESRPEAEEGDIIGSWFWAGEEDRLEPAAETREEDRLAAEKEGIVGSWFGAREETIRREAGSCSKSSPKAEEEEVIIGSWFWEEEASPEAVAGVGFESKPGTEEEEITVGSWFWPEEEASIQAGSQAVEEMESETEEETIFGSWFWDGKEVSEEAGPCCVSKPEDDEEMIVESWFWSRDKAIKETGTVATCESKPENEEGAIVGSWFEAEDEVDNRTDNGSNCGSRTLADEDEAIVGSWFWAGDEAHFESNPSPVFRAICRSTCSVEQEPDPSRRPQSWEEVTVQFKPGPWGRVGFPSISPFRFPKEAASLFCEMFGGKPRNMVLSPEGEDQESLLQPDQPSPEFPFQYDPSYRSVQEIREHLRAKESTEPESSSCNCIQCELKIGSEEFEELLLLMEKIRDPFIHEISKIAMGMRSASQFTRDFIRDSGVVSLIETLLNYPSSRVRTSFLENMIRMAPPYPNLNIIQTYICKVCEETLAYSVDSPEQLSGIRMIRHLTTTTDYHTLVANYMSGFLSLLATGNAKTRFHVLKMLLNLSENLFMTKELLSAEAVSEFIGLFNREETNDNIQIVLAIFENIGNNIKKETVFSDDDFNIEPLISAFHKVEKFAKELQGKTDNQNDPEGDQEN

>NP\_542402.2 potassium voltage-gated channel subfamily E member 4 [Homo sapiens]

MLKMEPLNSTHPGTAASSSPLESRAAGGGSGNGNEYFYILVVMSFYGIFLIGIMLGYMKSKRREKKSSLLLLYKDEERLWGEAMKPLPVVSGLRSVQVPLMLNMLQESVAPALSCTLCSMEGDSVSSESSSPDVHLTIQEEGADDELEETSETPLNESSEGSSENIHQNS

>NP\_000802.2 gamma-aminobutyric acid receptor subunit alpha-6 precursor [Homo sapiens]

MASSLPWLCIILWLENALGKLEVEGNFYSENVSRILDNLLEGYDNRLRPGFGGAVTEVKTDIYVTSFGPVSDVEMEYTMDVFFRQTWTDERLKFGGPTEILSLNNLMVSKIWTPDTFFRNGKKSIAHNMTTPNKLFRIMQNGTILYTMRLTINADCPMRLVNFPMDGHACPLKFGSYAYPKSEIIYTWKKGPLYSVEVPEESSSLLQYDLIGQTVSSETIKSNTGEYVIMTVYFHLQRKMGYFMIQIYTPCIMTVILSQVSFWINKESVPARTVFGITTVLTMTTLSISARHSLPKVSYATAMDWFIAVCFAFVFSALIEFAAVNYFTNLQTQKAKRKAQFAAPPTVTISKATEPLEAEIVLHPDSKYHLKKRITSLSLPIVSSSEANKVLTRAPILQSTPVTPPPLSPAFGGTSKIDQYSRILFPVAFAGFNLVYWVVYLSKDTMEVSSSVE

>pdb|1UJL|A Chain A, Solution Structure Of The Herg K+ Channel S5-P Extracellular Linker

AIGNMEQPHMDSRIGWLHNLGDQIGKPYNSSGLGGPSIKDKX

>NP\_001122298.1 neuronal calcium sensor 1 isoform 2 [Homo sapiens]

MATITEKEVQQWYKGFIKDCPSGQLDAAGFQKIYKQFFPFGDPTKFATFVFNVFDENKDGRIEFSEFIQALSVTSRGTLDEKLRWAFKLYDLDNDGYITRNEMLDIVDAIYQMVGNTVELPEEENTPEKRVDRIFAMMDKNADGKLTLQEFQEGSKADPSIVQALSLYDGLV

>NP\_001122387.1 1,25-dihydroxyvitamin D(3) 24-hydroxylase, mitochondrial isoform 2 precursor [Homo sapiens]

MSSPISKSRSLAAFLQQLRSPRQPPRLVTSTAYTSPQPREVPVCPLTAGGETQNAAALPGPTSWPLLGSLLQILWKGGLKKQHDTLVEYHKKYGKIFRMKLGSFESVHLGSPCLLEALYRTESAYPQRLEIKPWKAYRDYRKEGYGLLILEGEDWQRVRSAFQKKLMKPGEVMKLDNKINEVLADFMGRIDELCDERGHVEDLYSELNKWSFESICLVLYEKRFGLLQKNAGDEAVNFIMAIKTMMSTFGRMMVTPVELHKSLNTKVWQDHTLAWDTIFKSVKACIDNRLEKYSQQPSADFLCDIYHQNRLSKKELYAAVTELQLAAVETTANSLMWILYNLSRNPQVQQKLLKEIQSVLPENQVPRAEDLRNMPYLKACLKESMRLTPSVPFTTRTLDKATVLGEYALPKGIVRKYDIQATDNEPVEMLHSGTLVPSRELPIAFCQR

# Supplementary Figures and Tables

## Supplementary Tables

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**Supplementary Table S1**

**Supplementary Table S2**

**Supplementary Table S3**

**Supplementary Table S1**  **General information about the complete genome of the shortlisted strains in the genus Ureaplasma sp.**

| #Organism Name | Strain | Assembly | Level | Size(Mb) | GC% | Replicons | Scaffolds | CDS |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Ureaplasma parvum* | hebnu3h04 | GCA\_002205515.1 | Complete | 0.732889 | 25.4 | chromosome:NZ\_CP021987.1/CP021987.1 | 1 | 576 |
| *Ureaplasma parvum* | hebnu uu3 | GCA\_002205735.1 | Complete | 0.727176 | 25.5 | chromosome:NZ\_CP021991.1/CP021991.1 | 1 | 582 |
| *Ureaplasma parvum* | hebnu3h05 | GCA\_002205535.1 | Complete | 0.722452 | 25.4 | chromosome:NZ\_CP021988.1/CP021988.1 | 1 | 576 |
| Ureaplasma parvum serovar 3 | OMC-P162 | GCA\_003953005.1 | Complete | 0.732031 | 25.5 | chromosome:NZ\_AP018561.1/AP018561.1 | 1 | 580 |
| Ureaplasma parvum serovar 3 | SV3F4 | GCA\_000828735.1 | Complete | 0.727289 | 25.5 | chromosome:NZ\_AP014584.1/AP014584.1 | 1 | 571 |
| *Ureaplasma parvum* serovar 3 str. ATCC 700970 | ATCC 700970 | GCA\_000006625.1 | Complete | 0.751719 | 25.5 | chromosome:NC\_002162.1/AF222894.1 | 1 | 614 |
| *Ureaplasma parvum* | hebnu3h07 | GCA\_002205575.1 | Complete | 0.723292 | 25.4 | chromosome:CP021989.1 | 1 | 482 |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Ureaplasma parvum* | 106 | GCA\_006716515.1 | Complete | 0.741809 | 25.5 | chromosome:NZ\_CP041199.1/CP041199.1 | 1 | 586 |
| *Ureaplasma parvum* | hebnu1229 | GCA\_002205595.1 | Complete | 0.737737 | 25.4 | chromosome:NZ\_CP021990.1/CP021990.1 | 1 | 577 |
| *Ureaplasma parvum* serovar 3 str. ATCC 27815 | ATCC 27815 | GCA\_000019345.1 | Complete | 0.751679 | 25.5 | chromosome:NC\_010503.1/CP000942.1 | 1 | 605 |
| Ureaplasma urealyticum | 315 | GCA\_006777105.1 | Complete | 0.853955 | 25.7 | chromosome:NZ\_CP039963.1/CP039963.1 | 1 | 655 |
| Ureaplasma urealyticum serovar 10 str. ATCC 33699 | ATCC 33699 | GCA\_000021265.1 | Complete | 0.874478 | 25.8 | chromosome:NC\_011374.1/CP001184.1 | 1 | 646 |
| Ureaplasma urealyticum | 132 | GCA\_006716625.1 | Complete | 0.825366 | 25.8 | chromosome:NZ\_CP041200.1/CP041200.1 | 1 | 639 |

**Supplementary Table S2 Screened KO assigned proteins not involved in any metabolic pathway**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Serial no.** | **KO assignment** | **UniProt ID** | **Gene name** | **Protein name** |
| 1 | K03664 | B5ZAN8 | UUR10\_RS00315 | SsrA-binding protein SmpB |
| 2 | K02520 | B5ZB36 | UUR10\_RS01080 | translation initiation factor IF-3 |
| 3 | K02469 | B5ZAR1 | UUR10\_RS00430 | DNA topoisomerase (ATP-hydrolyzing) subunit A |
| 4 | K00554 | B5ZC78 | UUR10\_RS03240 | tRNA (guanosine(37)-N1)-methyltransferase TrmD |
| 5 | K02356 | B5ZBA7 | UUR10\_RS01445 | elongation factor P |
| 6 | K03687 | B5ZBQ3 | UUR10\_RS02205 | nucleotide exchange factor GrpE |
| 7 | K02600 | B5ZBC7 | UUR10\_RS01585 | transcription termination/antitermination protein NusA |
| 8 | K02838 | B5ZC20 | UUR10\_RS02905 | ribosome recycling factor |
| 9 | K03530 | B5ZB93 | UUR10\_RS01370 | HU family DNA-binding protein |
| 10 | K04075 | B5ZAQ6 | UUR10\_RS00405 | tRNA lysidine(34) synthetase TilS |
| 11 | K02601 | B5ZC96 | UUR10\_RS03335 | transcription termination/antitermination protein NusG |
| 12 | K02518 | B5ZB62 | UUR10\_RS01210 | translation initiation factor IF-1 |
| 13 | K20074 | B5ZB23 | UUR10\_RS01015 | serine/threonine-protein phosphatase |
| 14 | K02834 | B5ZBD0 | UUR10\_RS01600 | 30S ribosome-binding factor RbfA |
| 15 | K14742 | B5ZBC0 | UUR10\_RS01550 | tRNA(adenosine(37)-N6)-threonylcarbamoyl-transferase complex dimerization subunit type 1 TsaB |
| 16 | K07566 | B5ZAH8 | UUR10\_RS00025 | L-threonylcarbamoyladenylate synthase |
| 17 | K03086 | B5ZBF9 | UUR10\_RS01745 | RNA polymerase sigma factor |
| 18 | K06023 | B5ZAQ5 | UUR10\_RS00400 | HPr kinase/phosphorylase |
| 19 | K07447 | B5ZBI2 | UUR10\_RS01860 | Holliday junction resolvase RuvX |
| 20 | K13292 | B5ZAQ4 | UUR10\_RS00395 | prolipoprotein diacylglyceryl transferase |
| 21 | K11144 | B5ZBB5 | UUR10\_RS01525 | ATP-binding protein |

**Supplementary TABLE S3 Subcellular localization of 25 proteins screened through comparative metabolic pathway analysis**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Serial no.** | **UniProt ID** | **PSORTB v3.0.3 server** | **BUSCA server** | **CELLO v2.5 server** | **Final result** |
| 1 | B5ZAH4 | Cytoplasmic | plasma membrane | Cytoplasmic | Cytoplasmic |
| 2 | B5ZBR4 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 3 | B5ZC11 | Unknown | cytoplasm | Cytoplasmic | Cytoplasmic |
| 4 | B5ZBN9 | Unknown | cytoplasm | Cytoplasmic | Cytoplasmic |
| 5 | B5ZAN8 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 6 | B5ZB36 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 7 | B5ZAR1 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 8 | B5ZC78 | Cytoplasmic | cytoplasm | Cytoplasmic  OuterMembrane  Extracellular | Cytoplasmic |
| 9 | B5ZBA7 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 10 | B5ZBQ3 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 11 | B5ZBC7 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 12 | B5ZC20 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 13 | B5ZB93 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 14 | B5ZAQ6 | Cytoplasmic | plasma membrane | Cytoplasmic | Cytoplasmic |
| 15 | B5ZC96 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 16 | B5ZB62 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 17 | B5ZB23 | Unknown | cytoplasm | Cytoplasmic  Extracellular   InnerMembrane | Cytoplasmic |
| 18 | B5ZBD0 | Unknown | cytoplasm | Cytoplasmic | Cytoplasmic |
| 19 | B5ZBC0 | Cytoplasmic | plasma membrane | Cytoplasmic | Cytoplasmic |
| 20 | B5ZAH8 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 21 | B5ZBF9 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 22 | B5ZAQ5 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |
| 23 | B5ZBI2 | Unknown | cytoplasm | Cytoplasmic | Cytoplasmic |
| 24 | B5ZAQ4 | Cytoplasmic Membrane | plasma membrane | Inner Membrane | Cytoplasmic Membrane |
| 25 | B5ZBB5 | Cytoplasmic | cytoplasm | Cytoplasmic | Cytoplasmic |