>NP\_060476.2 mitochondrial tRNA-specific 2-thiouridylase 1 isoform a [Homo sapiens]

MQALRHVVCALSGGVDSAVAALLLRRRGYQVTGVFMKNWDSLDEHGVCTADKDCEDAYRVCQILDIPFHQVSYVKEYWNDVFSDFLNEYEKGRTPNPDIVCNKHIKFSCFFHYAVDNLGADAIATGHYARTSLEDEEVFEQKHVKKPEGLFRNRFEVRNAVKLLQAADSFKDQTFFLSQVSQDALRRTIFPLGGLTKEFVKKIAAENRLHHVLQKKESMGMCFIGKRNFEHFLLQYLQPRPGHFISIEDNKVLGTHKGWFLYTLGQRANIGGLREPWYVVEKDSVKGDVFVAPRTDHPALYRDLLRTSRVHWIAEEPPAALVRDKMMECHFRFRHQMALVPCVLTLNQDGTVWVTAVQAVRALATGQFAVFYKGDECLGSGKILRLGPSAYTLQKGQRRAGMATESPSDSPEDGPGLSPLL

>NP\_001129348.1 mitochondrial tRNA-specific 2-thiouridylase 1 [Rattus norvegicus]

MSALRHVVCALSGGVDSAVAALLLRRRGYQVTGVFMKNWDSLDEQGICAADKDCEDAYKVCQILDIPFHQVSYVKEYWNDVFSDFLNEYEKGRTPNPDISCNKHIKFSCFHHYAVDNLGADAVATGHYARTSLEDEEVFEQKHTKRPDGLFRNRFEVRNPVKLLQAADSFKDQTFFLSQVSQDALRRTIFPLGELTKDFVKKIAAENRLHHVLQKKESMGICFIGKRNLEHFLLQYLQPRPGKFISIEDNRVLGTHKGWFLYTLGQRAKISGLSEPWYVVEKDGTKGDVLVAPRVDHPALYRDLLRTNRVHWIAEEPPAALVRDKMMECHFRFRHQMALVPCVLTLNQDGTVWVTAVKAVRGLALGQFAVFYKGEECLGSGKILRLGPSAYTLQKGKNRTRVAPEVSSDSPGLHPTS

>NP\_082339.1 mitochondrial tRNA-specific 2-thiouridylase 1 [Mus musculus]

MSALRHVVCALSGGVDSAVAALLLRRRGYQVTGVFMKNWDSLDEQGVCAADKDCEDAYKVCQILDIPFHQVSYVKEYWNDVFSDFLNEYEKGRTPNPDINCNKHIKFSCFYHYAVDNLGADAVATGHYARTSLEDEEVFEQKHTKKPDGLFRNRFEVRNPVKLLQAADSFKDQTFFLSQVSQDALRRTIFPLGELTKDFVKKIAAENSLHHVLQKRESMGICFIGKRNLEHFLLQYLQPRPGKFVSIEDNTVLGTHKGWFLYTLGQRAKISGLREPWYVVEKDGTKGDVLVAPRVDHPALYRDLLRTNRVHWIAEEPPAALVRDKMMECHFRFRHQMALVPCVLTLNQDGTVWVTAVKAVRGLALGQFAVFYKGEECLGSGKILRLGPSAYTLQKGKNRTRVAPEASSDSPGLHPTS

>NP\_652639.1 mitochondrial tRNA-specific 2-thiouridylase 1 [Drosophila melanogaster]

MIRNVVVGVSGGVDSAVSAHLLAEQGFKVLGVFMRNWDEADEVGRCSGEADLKDAEWACRQLGVELRQVNYVREYWTAVFSQFLDDYQMGLTPNPDILCNRHIKFDLFHKHALENLGYDAVATGHYARNSLGNYLEGIASNNDARLLIPADTFKDQTFFLAGISRKALQRTMFPLGDFQKSQVKDLAKKIGFQRLAKKKESTGICFVGKRNFKDFIQEYITSKRGPFLDIDSGAVVGHHEGIHQWTVGQRCRLSSFLQPYFVARKEAASNTIYVASGHNHPALLSTHIAVDPPNWLCSKSQQILSDTGSLRCRFRFQHTKPLVDCQLSISPSNTFLVELDAPLRAITPGQYAVFYDDTACLGSARILSANPLKKKNAQTQQAQAANLVS

>XP\_011211827.1 mitochondrial tRNA-specific 2-thiouridylase 1 [Bactrocera dorsalis]

MFRNVVIGISGGVDSAISALLLKQKGYNVIGAFMKNWDEFDEMGACSGEQDYRDAEYTCQKLDIELHTVNYVKEYWNSVFSAFLEDYQNGLTPNPDILCNKYIKFDLFYKYATEQLQCDAIATGHYAKTSFGNFLQLYNANGAVHLLIPRDTFKDQTFFLSGIQRHTLSRTMFPLGDALKQEIKALARECGLERLAQKKESTGICFVGNRDFKQFIKEYIQPRTGHFVDIDNGKIVGTHEGIHTWTIGQRCRLASYLRPYFVAQKDVANNVIYVASGHEHPALYSDVIHAGAPNWLCNDPLSAGADVAGQQLRCRFRFQHTKPLVDCVVENSAKETGGVTITLDKPLRALTPGQYAVFYSETACLGSARIVSACRRAEDRLAEVEILKPS

>XP\_012158526.1 mitochondrial tRNA-specific 2-thiouridylase 1 isoform X1 [Ceratitis capitata]

MFRNIVIGVSGGVDSAISALLLKQKGYNVIGLFMKNWDEFDEMGACSGEQDYRDAEFTCQKLDIELHMVNYVKEYWNSVFRCKLGFPLPVSFFFRFFFSYISAFLEDYQNGLTPNPDILCNKYIKFDLFYKYARGHLHGDAIATGHYAKTSFGNFLEHYNANGDVNLLIPRDTFKDQTFFLSGIQRHTLSRTMFPLGDSLKSDVKLLARKCGLERLAHKKESTGICFVGNRDFKQFIKEYIQPRPGNFVDIDSGHIVGTHGGIHEWTIGQRCRLASYLRPYFVAKKDVANNTIYVASGHEHPSLYSDIINASAPNWLCNDPLGAGTSELRCRFRFQHTKPLVDCTVKRTKGNTSGVVITLDKPLRALTPGQYAVFYSGSACLGSARIISASAKVAESENKLARVGVEERVRSMKQR

>NP\_502120.1 putative mitochondrial tRNA-specific 2-thiouridylase 1 [Caenorhabditis elegans]

MPRVVIGMSGGVDSAVSAFLLKKRGFDVIGLHMINWDVQEEGTSHCPRSKDESDARNVCDRLNIPFHTVNFVKEYWNDVFLKFLENYKNGRTTVPDIDCNQSIKFDVFHKIAREKFNADFIATGHYATTNFGDFQQNAKDSDEIRLFSGKDPLKDQTFFLCTVNQEQLKRAMFPLGSLQKSEVKRIAEEQGFQEVAKKPESMGICFIGKKKRFSDFLDEYIEPKPGRILLKNGSEIGNHHGIHQFTIGKRINGKYLEARSHLGFFVSHIHSDTGDIIACEGSHHPDLYASRFLINHPKWIRTFDPFNRISSNNFLCRIQRTHPPIPCVAEKQEQFLSVIPRLALRATAPGQMCVFYNTKNECLGGGEIMNIQETL

>NP\_415651.4 tRNA-specific 2-thiouridylase [Escherichia coli str. K-12 substr. MG1655]

MSETAKKVIVGMSGGVDSSVSAWLLQQQGYQVEGLFMKNWEEDDGEEYCTAAADLADAQAVCDKLGIELHTVNFAAEYWDNVFELFLAEYKAGRTPNPDILCNKEIKFKAFLEFAAEDLGADYIATGHYVRRADVDGKSRLLRGLDSNKDQSYFLYTLSHEQIAQSLFPVGELEKPQVRKIAEDLGLVTAKKKDSTGICFIGERKFREFLGRYLPAQPGKIITVDGDEIGEHQGLMYHTLGQRKGLGIGGTKEGTEEPWYVVDKDVENNILVVAQGHEHPRLMSVGLIAQQLHWVDREPFTGTMRCTVKTRYRQTDIPCTVKALDDDRIEVIFDEPVAAVTPGQSAVFYNGEVCLGGGIIEQRLPLPV

>WP\_003459581.1 tRNA 2-thiouridine(34) synthase MnmA [Clostridium perfringens]

MTKKKVVIGMSGGVDSSVAAYLLKEQGYDVIGVTMQIWQEDKEYEEREGGCCSLSAVDDARRVAQKLDIPFYVLNFRDSFKRNVIDYFVDEYIQGRTPNPCIACNKYLKFDELLQKAKGIGADYVATGHYAKIEERDGRFQLIRSKDDRKDQTYALYNLTQEQLEHTLMPCGEFTKDKIREIAKEIGLDVHNKKDSEEICFIPDNNHGRYICEAAPNKVRPGNFVDKYGNVLGKHKGIVYYTIGQRKGLGLALGRPVFVTDINPVTNTVVVGPEEDIFKTDLVCKDINFISIDKLEGPMEVEAKIRYSARPAKATISPMENGRVKVSFEDKQRAITKGQSVVFYKDDLVVGGGIIESLL

>WP\_012353829.1 tRNA 2-thiouridine(34) synthase MnmA [Cupriavidus taiwanensis]

MSGAAKRVVVGMSGGVDSSVTAWLLKQQGYEVIGLFMKNWEDDDDSEYCSTRQDWLDVVSVADLIGVDVEAVNFAAEYKDRVFADFLREYSAGRTPNPDVLCNAEIKFKAFLDHAMSLGAETIATGHYARVRQNAAGRFELLKALDHTKDQSYFLHRLNQAQLSRTLFPLGEIPKTRVREIAAEIGLPNAKKKDSTGICFIGERPFRDFLNRYLPTKPGPMKTPEGKVVGEHIGLAFYTLGQRKGIGLGGSRDGNGDAWYVARKDMANNTLYVVQGHDHPWLLTPVLNASDLSWVAGEPPAAGAAMAAKTRYRQSDAACTVQAVDADALSLGFAEPQWAVTPGQSAVLYDGDICLGGGIIQ

>WP\_013318094.1 tRNA 2-thiouridine(34) synthase MnmA [Dickeya dadantii]

MSDNSQKKVIVGMSGGVDSSVSAYLLQQQGYRVEGLFMKNWEEDDDTEYCSAATDLADAQAVCDKLGIELHTVNFAAEYWDNVFEHFLAEYRAGRTPNPDILCNKEIKFKAFLEFAAEDLGADYIATGHYVRRKDVDGKSRLLRGLDGNKDQSYFLYTLSHQQLAQSLFPVGELEKPQVREIAEQLDLATARKKDSTGICFIGERKFRDFLARYLPAQPGPILSVDDGKVMGEHQGLMYHTLGQRKGLGIGGVKEGGDDPWYVVDKDVANNVLYVAQGHEHPRLMSVGLIAQQLHWVDREPLTQPLRCAVKTRYRQADIPCLLTPLDADRIEVRFDEPVAAVTPGQSAVFYQGEACLGGGIIEERLRAAQ

>WP\_012740641.1 tRNA 2-thiouridine(34) synthase MnmA [Lachnospira eligens]

MKKKVVVGMSGGVDSSVAAYLLKEQGYDVIGVTMQIWQDDATEAAENGCCGISAVDDARRVAGQLDIPYYVMNFKNEFKCNVIDYFVDEYKKGRTPNPCIACNRYVKWESLLKRSLEIGADYIATGHYARIHQLPNGRYTICNSVTARKDQTYALYNLTQEQLSHTLLPIGDYTKDQVREIASKIGITVAKKPDSMEICFIPDNDYAGFIKRETGYTSVPGNFIDVNGNVIGRHQGIIHYTVGQRKGLGLALGKPAFVVAIRPETNEVVIGDNSDVFSPKLYANNLNFMSIPSLEGEMRAKGKIRYSHEGAMCTIRMFDENTLECTFDEPVRAVTPGQALVLYDGDNVLGGGTII

>XP\_015631825.1 tRNA-specific 2-thiouridylase MnmA [Oryza sativa Japonica Group]

MLRVVSTLPALRPLLAGSTLLLNARPLLRSRLTRRPFRAVSSSTASPSSSSSGARDFGGVDFGDERLLRCAAAGRAPLRVAVLVSGGVDSSVALRLLHAAGHRCTAFYLKIWFQEDFRNFWSECPWDDDLKYAQAVCDKIDVPLEVVHLSDEYWNHVVSHIINEYRSGRTPNPDVLCNTRIKFGAFLEAIENLGFDYIASGHYAHVVHPSPDDVEGPSVLQLSKDKVKDQTYFLSHLSQTQLRRLLFPLGCITKDEVRRLAAQMDLPNQDRKDSQGICFLGKVKFSEFVERQIGEMEGVLLEAETGDYLGTHRGFWFYTIGQRQGLRLPGGPWYVVEKGVQNNVVFVSRNYYSLDKRRRTFRVGSLNWFSNSGPTNNEQLKCKVRHSPEFHDCTVTQEQTSEHGVILVVRLSEDDQGLAAGQFAAFYRDNLCLGSGIILDSWDEMNFPVCARALEIARMEDKSRLGKPVKIMNLEHIVKSEKEAIEVA

>XP\_037471941.1 tRNA-specific 2-thiouridylase MnmA-like, partial [Triticum dicoccoides]

LEAIENLGFDYIASGHYAHVVHPHVENAKEPSVLQLLKDEIKDQTYFLSHLSQPQLRRLLFPLGCITKDEVRSLAVQMDLPNQARKDSQGICFLGKVKFSEFVQRHIGEMEGILLEAETGDYLGMHRGFWFYTIGQRQGLRLSGGPWYVVEKDVQNNVVFVSRNYYSLDKRRRTFRVGSMNWFSDSGPAITARRHERRDEEIF

>XP\_013655567.1 tRNA-specific 2-thiouridylase MnmA-like [Brassica napus]

MFSTVMKPLLSPSPSLFRLPPLSSSLSLFFRVFPFSSSSSSHFHSPHPITPLRSSRRNYTRHHASLSDHYLSCSVPEKPLRVAVLLSGGVDSSVALRLLHAAGHSCTAFYLKIWFQEGFENFWNQCPWEDDLKYAKHVCEQVGVPLEVVHLTDEYWVRVVSYIIEEYKCGRTPNPDVLCNTRIKFGAFMDAISDMEYDYVASGHYAKVAHPAAGGPSVLELSQDMVKDQTYFLSHLSQTQLKRLLFPLGCVKKEEVRKLATQFDLPNKDRKDSQGICFLGKIKFSDFVGTHIGEKEGIILEAETGDFLGNHKGFWFYTIGQRQGLRLPGGPWYVVEKDTKNNVVFVSRDYYSIDKRRRVFRAGSLRWLSGKPLVNISQLRCKVRHGPGFYSCSFEMEAEGDVAVVHLDEDDQGLAAGQFAAFYEGTICIGSGVILESWDDQCFPVCAKALQLAAVEDKTKLGKPVKIMTMPVTTSVEAEPGESSGEERLVNA

>XP\_025695650.1 tRNA-specific 2-thiouridylase MnmA [Arachis hypogaea]

MMLRVAVRWSCWNPMTSLPLPTIRFPRRPRLLRFPASNLLSPLSASAALAPSDSFSSSSSSSFHVDLQPYLRCSMPHKRLRVAVLLSGGVDSSVALRLLHAAGHSCTAFYLKIWFQEDFENFWSECPWEEDLKYANAVCNQVEVPLEVVHLTDEYWNNVVSYIIEEYRCGRTPNPDVLCNTRIKFGAFLDAISGMGFDYVASGHYANVIHPCADQMEEPSVLELSQDMVKDQTYFLSHLPQSQLKQLLFPLGRISKDEVRRLATEFDLPNKDRKDSQGICFLGKIRFSEFVARHIGEREGIILEAETGDFLGKHRGFWFYTIGQRQGLRLPGGPWYVVEKDIKNNVVFVSRNYFSFDKTRRLFRVSSLKWLSGLPATQISKLQCKVRHGPGFYDCSFEMEVGKDGQESVAVVRLSEDDQGLAAGQFAAFYEGRKCIGSGVILESWDDQSFPVCAKALEIARMEDKSKLGNPVKIKVKSEEVFVSTEVASKAC

>XP\_009376883.1 tRNA-specific 2-thiouridylase MnmA-like [Pyrus x bretschneideri]

MAVWQLLRTVLSGGSSSSSTVTAISSSPPKPKTPISNQHSSPNLHLPKRCRLLYNVYATKPMARLIPMAMAASLLPHITSHTLPLKPYLWPFPRSPTPTTRLFVRPFSLSARSVNCFSVPQTPRSSNSFNGDVGPYLSCSMPHQRLKVAVLLSGGVDSSVALRLLHAAGHSCTAFYLKIWFQEDFENFWSECPWEEDLKYAKAVCNQVDVPLEVVHLTDEYWKNVVSYIIEEYQCGRTPNPDVLCNTRIKFGAFMDSINSMKFDYVASGHYANVVHPPASQTDKDSVLELSQDMVKDQTYFLSNLSQAQLRRLIFPLGCLSKDEVRKLATKFDLPNKDRKDSQGICFLGKIKFSEFIARHIGEKEGVILEAESGDFLGNHRGFWFYTIGQRQGLRLPGGPWYVVEKDIKNNVVFVSRNYFSVDKRRRLFRVGSLKWLNGLSPNQISQLECKVRHGPAFCKCSFIMEPGEDGHEDVAVVHLSQDDQGLAAGQFAAFYQGRTCLGSGVILESWDDQGFPVCARAHEIARMEDKSILGKPVKIKVKPENLLRESGEVDGVELCGGLKNPGIAATKQPMQVSQ

>NP\_175542.2 tRNA (5-methylaminomethyl-2-thiouridylate)-methyltransferase [Arabidopsis thaliana]

MFSAVAKPFLSPSPPLFRLPLSSISISFRVFPSFFSSSSSSQLPSPQSSNPITPLISSNRNYSRHAFIVDQYLSCSMPEKPLRVAVLLSGGVDSSVALRLLHAAGHSCTAFYLKIWFQEGFENFWNQCPWEDDLKYAKHVCEQVDVPLEVVHLTDEYWERVVSYIIEEYRCGRTPNPDVLCNTRIKFGAFMDAISDMEYDYVGSGHYAKVVHPPADQNDASSVLELSQDMVKDQTYFLSHLSQTQLKRLLFPLGCVKKDEVRKLATQFDLPNKDRKDSQGICFLGKIKFSDFVCRHIGEMEGIILEAESGDFLGNHRGFWFYTIGQRQGLRLPGGPWYVVEKDTKNNVVFVSRNYYSIDKRRRIFRVGSLRWNSGKPSGKVRELRCKVRHGPGFYSCSFEMEGDGDVAVVHLDEDDQGLAAGQFAAFYEGTTCIGSGVILESWDDQCFPVCAKALQLAALEDKTKLGKPVKIMTMPTMSSVEADTGEASAEQKLVNA

>NP\_011304.2 Ncs6p [Saccharomyces cerevisiae S288C]

MSFTAPSDPVNKPTKVKVSQLCELCHSRKALIRRPKNLSKLCKQCFCLVFETEIHNTIVANNLFQRGEKVAVGASGGKDSTVLAHMLKLLNDRYDYGIEIVLLSIDEGIIGYRDDSLATVKRNQQQYGLPLEIFSFKDLYDWTMDEIVSVAGIRNSCTYCGVFRRQSLDRGAAKLGISHVVTGHNADDMAETVLMNILRGDVARLEKSTAIITQSSGSPIKRSKPFKYSYQKEIVLYAHYMKLDYFSTECTYAPEAFRGTAREYMKNLEAVRPSCIIDIIQSGENLALKAKKSNAGKRVVKFVDGNRCARCGYLSSNNICKACMLLEGLEKSRAQVAIENDTSADGAALKLRALEKLSF

>NP\_660275.2 cytoplasmic tRNA 2-thiolation protein 1 [Homo sapiens]

MPAPPCASCHAARAALRRPLSGQALCGACFCAAFEAEVLHTVLAGRLLPPGAVVAVGASGGKDSTVLAHVLRALAPRLGISLQLVAVDEGIGGYRDAALAAVRRQAARWELPLTVVAYEDLFGGWTMDAVARSTAGSGRSRSCCTFCGVLRRRALEEGARRVGATHIVTGHNADDMAETVLMNFLRGDAGRLARGGGLGSPGEGGALPRCRPLQFASQKEVVLYAHFRRLDYFSEECVYAPEAFRGHARDLLKRLEAARPSAVLDLVHSAERLALAPAARPPRPGACSRCGALASRALCQACALLDGLNRGRPRLAIGKGRRGLDEEATPGTPGDPARPPASKAVPTF

>NP\_001015743.1 cytoplasmic tRNA 2-thiolation protein 1 [Xenopus tropicalis]

MPVNCSSCEERRAVLRRPKTGHSLCKDCFFHAFEEEIHHTIVSAKLFNPGEKVGIGASGGKDSTVLAHVLKVLNERYAYGLDLILVSVDEGISGYRDDSLETVKRNQQQYELPLKIVSYQELYGWTMDQIVKQVGLKNNCTFCGVFRRQALDRGAMMLGVNKICTGHNADDIAETVLMNFLRGDIARLRRCTSITTGSEGAIPRCKPLKYAYEKEIVLYAYFKKLDYFSTECIYSPNAYRGHARAFLKDLEAIRPSSIMDIIHSGENLSVKEDVRMPVQGTCTRCGYISSQSLCKACVLLEGLNRGLPKLGIGKHHKLHHKLLSQEPLSEQEERKLKAVDF

>NP\_001099721.1 cytoplasmic tRNA 2-thiolation protein 1 [Rattus norvegicus]

MPAPTCFSCHKARAALRRPRSGQALCGPCFCAAFEAEVLRTVLAGHLLPQGAVVAVGASGGKDSTVLAHVLRELAPRLGITLHLVAVDEGIGGYRDAALEAVRSQAARWELPLTIVAYEDLFGGWTMDAVARSTAGSGRSRSCCTFCGVLRRRALEEGARLVGATHIVTGHNADDMAETVLMNFLRGDAGRLARGGVLGSTGEGCALPRCRPLQFASQKEVVLYAHFRHLRYFSEECVYAPEAFRGHARDLLKLLEAARPSAVLDLVHSAERLALAPAAKPPPPGTCSRCGALASNKLCQACALLDGLNRGLPRLAIGKGRRVLQVEPPPLGNPSRVTSDPVALPEPCTCKQSKDESNPCGNGGDRAGATCVSKSDLSPVAE

>NP\_663557.1 cytoplasmic tRNA 2-thiolation protein 1 [Mus musculus]

MPAPTCFSCHKTRAALRRPRSGQALCGSCFCAAFEAEVLHTVLAGHLLPPGAVVAVGASGGKDSTVLAHVLRELAPRLGITLHLVAVDEGIGGYRDAALEAVRSQAARWELPLTIVAYEDLFGGWTMDAVARSTAGSGRSRSCCTFCGVLRRRALEEGARLVGATHIVTGHNADDMAETVLMNFLRGDAGRLARGGVLGSTGEGCALPRCRPLQFASQKEVVLYAHFRHLRYFSEECVYAPEAFRGHARDLLKLLEAARPSAVLDLVHSAERLALAPAAKPPPPGTCSRCGALASHKLCQACALLDGLNRGLPRLAIGKGRRVLQVEPPQPGNPSLVTSDPVAPAGPCTCKQPKDKANPCGNGGDRAGATCVSQCDLSPGNGEDRAGATCVSQRDLSLGNGGDRAGATCVSQCDLSPVAE

>WP\_010902098.1 putative tRNA 2-thiolation protein NcsA [Halobacterium salinarum NRC-1]

MDCTKCDRDAVMHAAYSGAHLCEPHFLDSVERRVRRRIRTDNMLSPDTTPDDPETWVIGLSGGKDSAVLTDLIEETFRDDPRVELIALTIHEGIAGYRDESLDACTTLAADRDIRHELVTYREEFDVAMDDVADDDPLDMAPCAYCGVFRRDLLAKYADEYDADKLLTGHNLDDEAETALMNILEGNVTQIATHFDASLGSFDDRAELDAMIPRAKPLRDIPEKEVALYAQLRDLPVHMAECPHASESFRSDLQEVLLELEDRRPGTRHSIMAGYEELAGIAADEYNTDDADVGECSDCGAPTTRDRCRKCTLVDAVTSV

>WP\_004044353.1 putative tRNA 2-thiolation protein NcsA [Haloferax volcanii DS2]

MECDKCGRDAVMHAAYSGAHLCDDHFCASVEKRVRRRIREDNMLPRDASPENPQTWVIGLSGGKDSVVLTHILDDTFGRDPRIELVALTIHEGIEGYRDKSVDACVELAEDLDIHHELVTYEDEFGVQMDDVVEKDPENMAACAYCGVFRRDLLERFADELGADKLLTGHNLDDEAQTALMNFFEGDLKQVAKHFDASIGDFEKRRDAGEFIPRAKPLRDVPEKEVALYAHLKDLPAHITECPHSSEAYRGEIQQLLLKLEENHPGTRHSIMAGYEELAELTAREYRGEGRVDLNDCERCGSKTAGDVCRKCRLIESIEAV

>QOS10697.1 putative tRNA 2-thiolation protein NcsA [Haloferax gibbonsii]

MECDKCGRDAVMHAAYSGAHLCEDHFCASVEKRVRRRIREDNMLPRDASPENPQTWVIGLSGGKDSVVLTHILDDTFGRDPRIELVALTIHEGIEGYRDKSVDACVELAEDLDIHHELVTYEDEFGVQMDDVVEKDPENMAACAYCGVFRRDLLERFADELGADKLLTGHNLDDEAQTALMNFFEGDLKQVAKHFDASIGDFEKRRDAGEFIPRAKPLRDVPEKEVALYAHLKDLPAHITECPHSSEAYRGEIQQLLLKLEENHPGTRHSIMAGYEELAELTAREYRGEGRVDLNDCERCGSKTAGDVCRKCRLIESIEAV

>Toxoplasma gondii TGGT1\_309110

MFLSSLGGCKSLSAVLFLLLFVLAPRQASPLATSVASAAGSSAWLPAALPRSSGVRPPDQSRRLGRSAPRGNADNLQQLPSQNGVRRRRSVSWARGLPALFRAAADEGTEGGTRSDPREDDACSLLPSSHRPSWQLRGDAAGASLNEKSGKTRRRSGSHPWVRSVAKRRFPRWTYTSLSHHRGVPCASLLPHRCGFCPSSSFLNSARFCPVIGEDTAVRGVLAGGDGVWSHVVSGSAARCDAGRPRQEKAGVAGRKRPHTAVFFISNFAPCGASTSSRDCFANSAEDRRGAPVGPPLSPSLRSLSRSSLRSSARDPFSPATPLASSGSLPPRMRELLSELRRQKDLHAVFEKLVSFASSVPLYPARDASAVSSRASTASPPSPPRPVPSASLSPAPPPKATETSGRADDRLLPPAQLLQQPRREASEEADEEGDSPEAWERVAGCAALVRIRVCLRRVLSPKREGESRACSVFREADGRQEPQQGAVASLSVAASSSSGASCHDVEAAKKERRELRREDRDGEDERRRWELRVDLRGWSDSLVVRAWLAILVVGLNNAAPDTVLALSTDDILREAGLMPSSTPSGGKDHKDTEKETQGEPQKQTEEGEDGQREAEEEAEEEEEEERKGSKRESEEERLQEGEERVREEETRKCREEEKRRLVVPQGLEFMLRSIQRQVREQLSRLAEEEKNGGAPDGKVRKSKTDRDASRDLTGETRTRTDENGVQRSVLHRCRNDAETEADSHHVSSSLSSSLPPSQPHLSSPSSSSLSSSSSPSSSSSSSSSAAPDLFASTTETCEEKRELRRSAASSPPQVAVLLSGGVDSSVSLCLLQQRGFAPQAFFIKVWLPELLLVSRHLNRLLDSGLAPAAAGGCGWERDLLFADQVCRQARVPLEVLPLQEAYWEGVVQQMLDEARQGLTPNPDWWCNQRVKFGAFLDLLDGRETRFSARRIAGESEGENEKEEADMPFLRNSSRWTGAVASGHYARVVRAAETSRRSEEGEDTEDTDEDGEEDRGDKERGSEEERRTRLFRGKDRRKDQSYFLSGLSQRQLRRLVTPVGDMEKVEVRRLAAALDLPTARRQDSQGLCFLGNLSLSFFFRHFLGSSTGPVLHFPSCLALGSHDGLWNFTVGQRKGVTPCIDVARVRRLSSLPDSSLTPHAASVDSEGSEEQTARAGDSWRRQARAPPGKPTKASATGQGRQAADDEERRLLEAKCHRDGDDSCVRSANHTVRGRLECTDNADRPDGRVPVLSEGNEAPSSSSCSSSAEANEGQEEGGDRQSRLSSSSFAACLSGSPQNLFEPANPFSRTGLGAASLAGRWVVAAKHPPSNALFVVSEKEMKAAAAVAESVGYSLDVLAAGPGVRTLGDSQTYLLALLLTLQQKFLRVDNIQWISHPPCAACNAEEQPVSRDPSFLDTLLGSRDPRARLRGDEKSLETADEFAFLRWALEGSRDKRPRLYDVQVRHAAGTACAAIHRRVRLCLFPPERRSPSFLSPSAVSEESGGRRTESRAPFGPSRAETSAGSSGAWTAWIELAEPDEGLAPGQIAAIYEGEECLGAGRISARQGQMAVEAALRSAGLN

>Toxoplasma gondii TGGT1\_309020

MDSLHASSALSSSSSSSFSASSSSSSSSSSSSSSSSSSSSSSSAFSSSSSASSSFSSASSVRFSPSRCQFCGSPRVSLLRVASRLRSCRECFVRAFEDDVSAFIRRFSLFQRGQKVAVCVSGGKDSAVLLHVLHTLNARENLGLSLHLLAVDEGIKGYRDHALAAVRRNSEVYNLPLHVVSYASLYHGWTMDRIAQQALLGKDGEPPVSRKAAEAPSSSSPSSASSGAPERPAASCCSSLSPATQSCGCSSGGGASVGPGESAEAARPGRAEKKRETQAGRSDDFTHSCTFCGIFRRQAFERGAQDIGADVLCTGHNADDGAETFLMNILRGDMQRLPVSGAPLTGSREGPSVMRVKPLLASYQREVVLYAHFNRLDYFATECTYSGAAYRGLVRNFLSSLQDNQHQQRVLDLLHAARKLWVPSRVSSEAAKDAGDSEARREGRSGDSDMAGRTQSVRRKGGGEEAAGTEVDVFLRETHENAFRECTATAATHDALQASSLSPASAYKRETEAATASSLGGDLSVPSNASSASFRLSNAGCGDRGEGGLEKNESGTGPARNGQLRPCVLCGFLTKNDLCRACALVQALNENKLDFVGMNARKGNKLMRGNERGNHEKGKASLCSERRDSIKPAVVRKENTRPSDLASQTPGLRGSLAW

>Toxoplasma gondii TGGT1\_294380

MQFHRQALPPSLAASSLLPRSSLSVRLLSQIYEDTLGEAYGLETPFSSSSSLSSKPSYRPLLYADYAASGRALKSVEEFLLLRVLPLYGNTHTQESATGKQANQLLEEARHIVKMYFNCSHKDAVIFCGGGASAAVSKFLQILLLSAPHAACAWASSAVCGDTGRSRSREPVFSSSPSSSFLSTFFALFEEDRWGSFVCRACGARLKTAAHARRHMPVHPHFKFLSPVSSSSSSSSSSSSPSSPSSSSSNVPAGVCCSSRSPLAASEVPEGEALRGGEKRRARVHLRIHFFVDPCCHHSSFLPFKELATASGLASASSLQASSDSSVTGCFPEKEQTISTECAEGRYSYRGAAERPQGRQTTETAGTFRETPEPPVDMHFFFSFFDLDMRTATLAPLSVLEKLREEEQVCARLNDACRERDSTSATTAKQNHSDIDGKRRHEDIYVSLPVCIFSAASNVTGLISPTLPSSSPSSSSSPSFASSPSFAFSPFSASSLSDRSKLSMAQLNRIVHHFGGVSCWDFAGAASHIGADVNWAGGGGRLRLPVDGGRVAGGREGVETGRCELQTREHKLCVEIDEQGAGADVVFFSPHKLLGGPGSCGVLLLKKQLLLSDLPAHPGGGSVYLVSGHKAAVYTLDRSEHREEAGSPNLLAIVRAAAAIRVLQQLPMDLVRTREELWTQKLLHRLSSHPRIQIVGALHPRVGIVSLLFRYGNANHPTEPTHAHTPTDCRCLRRNYAFGGGLYLHQNFVVALLNDLFGIQVRGGCLCASPYTSFLLSIDPKLLETIEAMLLETGQDVFRPGVVRVSLHGLMRTEELDKLSAALLWVASNGWKLMPRYEVTPESGQWRVKGWAGRREEAVRTWISEASLLPQGDSEEKGDRTKNSTVFEGTIARCNETIEEMLNFANRVLSSHLSHFHASAAPSFHLLHLPPQNSSMSPPLGEKRFSAATAPLQHAPPGPAPPRGDRGDSRDSGGSRGCEGDSGEASRDSEESREQLTTLGEELLHSSSSPAWKPAASAAETAATLVWFALPADAAYSISLWSRAGGSRETDVREISTSEVSQILDAPHALSPEALPFDRELADLSPRVSASAIRWLPGVSGETRTSNADGKAEKGSDGKIPALQRAEHSCFQLRLFTGANCCSCWSHSDEARLRAVEDGQEAQGDAAEVAHAEKKQESDTVEEGDWLLVSEKTENAQTDGRTVDTPETSAAAAQVDDLRRQVAALREALEREREKSERLREKREYTGKKANSNAKRGGRAALETETHENIHKTADSTQEANACSKTSRSSFSPSSPSCSSSPPSSSPSCSSSPPSSSPSPARSFLPILQIPRTLRRTVGEAIRSFDMIRDGDRLLVGVSGGKDSLTLLHVLRDLRRRAPIHFSLAAATVDPVTPEFCPQPLIKYMEDLGIRYHYLRLPIMALAKERMQRQSICAFCSRLKRGLLYSCMRKHGYNVLVLGQHLDDACESFLMSAFHNGVLNTMKGHYVNADGDLRICRPLITTREKETAEFAARHRLPVIADNCPACFAAPKERHRMKMLLSEQEMEFPHLFQNLLKSLTPLLAISAAENRPQKAAVRRNRIPAEGSSNEARERGEKRERMPDRADEDAAGSVEPLFTTVEDFEEDSVETLLRHAGGREEGGKKMRGRDQSGESGDASELSGEKEQEGGSRAEEEDEAAELVVTACGVGSDGVCRRVKS