Supplementary Material

# Supplementary Data

Protein sequences in this study

>WP\_161664743.1 glycoside hydrolase family 19 protein [Corallococcus silvisoli]

MPGSGVLLGGAALVGLGAWAMRGGAAAAPLTVDQLCAVMPRLTPSVAASYLGPLLAAMREAEVTTVARVAAFLAQLAHESGELRYWEELATGDAYEGRKDLGNTQPGDGRRYKGRGPIQLTGRANYRAAGAALGLPLEDKPELAALPAHGFRVAGWYWQSRHLNALADVADFVGVTRAINGGTNGLDNRVMYFDRAQRVLKTEAA

>WP\_239469744.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MSSNRWALAAAGAAILGGLVYLATRRTSRFAVQLRSIMPRLSLVDAGRYAGELLAAMDEGGITTPARQAAFLAQLAHESGELRYMEELASGEAYEGRKDLGNTQTGDGRRYKGRGPIQLTGRSNYRAAGDALGLPLEQQPELAAQPDVGFRVAAWFWRSRELSALADAGNFREVTRRINGGYNGLDQREAYWSRARQVLGA

>QRN92835.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MRCTRSCGGRTVCCRASRPSRSAARGTCASWCGCAGACGAWSRRAVRAMSSNRWALAAAGAAILGGLVYLATRRTSRFAVQLRSIMPRLSLVDAGRYAGELLAAMDEGGITTPARQAAFLAQLAHESGELRYMEELASGEAYEGRKDLGNTQTGDGRRYKGRGPIQLTGRSNYRAAGDALGLPLEQQPELAAQPDVGFRVAAWFWRSRELSALADAGNFREVTRRINGGYNGLDQREAYWSRARQVLGA

>MBN1209209.1 peptidoglycan-binding protein [Myxococcaceae bacterium]

MAAGTPPPPPSPVGVAQPWRPAPSWDAVLFQGQFLEQGHQGPVVAELQKLLGVSSDGQFGAQTRAAVEAFQRAVHISPSSEAVGRVGKTTLRTLLTLKRHWLPAPSLEEIRKGSRLLGVGQAGPAVKEVQRLLQLAPAQQDGFFGAGTQAAVVDFQRKAGLPQVPGSEGVIGQALLEALLRRQGQAAGTGAGVTLQQLRAIMPRLSEAQASSYLPHLNAAMAQVEITTPRRQAAFLAQLAHESGELRFWEELADGKAYEGRRDLGNTQPGDGPRYKGRGPIQLTGRANYRAAGQALGIDLEKSPERARDPDVGFRVAAWYWQSRGLNALADAGDFREITRRINGGYNGLPQREEYYARALRIL

>MCU0696659.1 LysM peptidoglycan-binding domain-containing protein [Myxococcaceae bacterium]

MSTYQIRRGDTLSALASRFGTSVSALARLNNIKNPDLIYAGATLRLPDSYGSARPSAPGAVPQPRPSQPGASRPQGVDEVQPPSGDTNGITADELRRVMPNLSPELAQRYLPYLNSAMNEAGITTPARRSAFLAQLAHESGELRYMEEIASGAAYEGRRDLGNTQPGDGRRYKGRGPIQLTGRANYRAAGEALGIDLERNPERAADPDVAFRIATWYWQSRGLNGLADQGNFREITRRINGGYNGMADRQRYYERAQQVF

>KFA86704.1 hypothetical protein Q664\_52795 [Archangium violaceum Cb vi76]

MQQAGPISLEQLKAIMPRVPVAKASEYLGHLNAAMREREITSPKRAAAFLAQLAHESGELRYMEEIASGAAYEGRADLGNTQPGDGKRYKGRGPIQLTGRANYRTAGKALGVALEDNPTRAAEPDVAFRVAAWYWGSRGLNSLADTGNFREITRLINGGYNGMADREAFWAKAKATLGAA

>WP\_147439293.1 glycoside hydrolase family 19 protein, partial [Corallococcus sp. CA049B]

GVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEASINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLSSREMYYRRAQDVLG

>WP\_199753869.1 MULTISPECIES: glycoside hydrolase family 19 protein, partial [Corallococcus]

SSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_223632042.1 glycoside hydrolase family 19 protein [Corallococcus sp. EGB]

MILEALGLTAVAAAGAPKVVNKVRPKVDLVAGLTLAQLRAIMPNLAEAKAVEYLPLLAKAMNEAGINTPLRRAGFLAQLAHESGEFRWMEEIADGTAYEGRKDLGNTQPGDGARYKGRGPIQLTGRANYRAAGAALGLDLEGNPDQAKTPAVGFRVASWYWTSKSINPLADARDLVGMTKKVNGGTNGLEDRKKYYERALRVLGVAA

>WP\_301340945.1 MULTISPECIES: glycoside hydrolase family 19 protein, partial [Corallococcus]

GKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MDP3232862.1 glycoside hydrolase family 19 protein [Myxococcales bacterium]

MRDYQIRRGDTLSQLAARFGTSVSALARLNNIRNPDLIIAGANLRVPDGFSAPRPSAPGSVPSTQPSAPSTRPDRTEDVAPAQGDTRGISAEELQRIMPSLSPQLAQRYLPYLNSAMNEAGITTPARRAAFLAQLGHESGGLRYFEEIASGAAYEGRRDLGNTQPGDGRRFKGRGPIQLTGRANYRAAGQALGIDLERNPERAADPDVGFRIAAWFWQSRGLNSLADQGNFREITRRINGGYNGYDDRVQYWNRARQVL

>WP\_152622858.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MPRNVGFILLAAAVVAVGAYVLMQQAGPISLEQLKAIMPRVPVAKASEYLGHLNAAMREREITSPKRAAAFLAQLAHESGELRYMEEIASGAAYEGRADLGNTQPGDGKRYKGRGPIQLTGRANYRTAGKALGVALEDNPTRAAEPDVAFRVAAWYWGSRGLNSLADTGNFREITRLINGGYNGMADREAFWAKAKATLGAA

>WP\_199735398.1 glycoside hydrolase family 19 protein, partial [Corallococcus sp. AB045]

GTPVTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MCA2980842.1 LysM peptidoglycan-binding domain-containing protein [Myxococcaceae bacterium]

MRSYLIRPGDTLSQLAARFGTSVSALAKLNDIRNPDLIYAGATLRLPDSYASPRPSAPGAVNEPSPTRALPSRPEGVDPVEAPRGDTSGISVDELRRVMPNLSPELAQRYLPYLNAAMNEAGITTPARRSAFLAQLAHESGELRYMEEIASGADYEGRRDLGNTEPGDGRRYKGRGPIQLTGRANYRAAGEALGIDLEGNPERAADPDVAFRIATWYWQTRGLNTLADQGNFREITRRINGGYNGMDDRERYYQRAREVF

>WP\_302052631.1 glycoside hydrolase family 19 protein, partial [Corallococcus exiguus]

GGTPGTSSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>OJT24651.1 hypothetical protein BO221\_14135 [Archangium sp. Cb G35]

MQQAGPVSIEQLKAIMPRAPAAKASEYLGHLNAAMREREITSPKRAAAFLAQLAHESGELRYMEEIASGAAYEGRVDLGNTQTGDGKRYKGRGPIQLTGRANYRAAGKALGVALEDNPTRAAEPDVAFRVAAWYWDSRGLNSLADTGNFREITRLINGGYNGMADREAFWAKAKATLGAA

>WP\_279635579.1 MULTISPECIES: glycoside hydrolase family 19 protein, partial [Corallococcus]

GGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_206794809.1 MULTISPECIES: glycoside hydrolase family 19 protein [unclassified Corallococcus]

MILESLVLAAVAAAGAPKVVKKMKPTLDLSGLTLAQLQAIMPNLSTALAQEYAPLLALAMNEAAINTPIRRAAFLAQLAHESGEFRWMEEIASGAAYEGRKDLGNTQPGDGIRYKGRGPIQVTGRANYRDAGQALGIDLENNPKRAAEPAIGFRTAAWYWTSRNINARADAGDLVGVTKLINGGTNGLEDRRKFYDRAVKVLGVTA

>OJT27696.1 hypothetical protein BO221\_04870 [Archangium sp. Cb G35]

MVAAVVLAVGVAVASGGGLLTLEQLRAIMPRLAQARAEELLSHLVAAMAEAGITTPRRKAAFLAQLAHESAEFRYFEELASGDAYEGRRDLGNTQPGDGRRYKGRGPIQLTGRNNYRDAGRALGVDLEGKPELAATPAVGFRTAAWFWRTRELNELADAGNFDAITKRINGGYNGKADRDAYHVRAQAALGAA

>WP\_143195445.1 glycoside hydrolase family 19 protein [Archangium sp. Cb G35]

MPRNVGFILLAAAVVAVGAYVLMQQAGPVSIEQLKAIMPRAPAAKASEYLGHLNAAMREREITSPKRAAAFLAQLAHESGELRYMEEIASGAAYEGRVDLGNTQTGDGKRYKGRGPIQLTGRANYRAAGKALGVALEDNPTRAAEPDVAFRVAAWYWDSRGLNSLADTGNFREITRLINGGYNGMADREAFWAKAKATLGAA

>WP\_301340410.1 glycoside hydrolase family 19 protein, partial [Corallococcus exercitus]

KGGVTAAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_208647366.1 glycoside hydrolase family 19 protein, partial [Corallococcus interemptor]

GGVTAAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_233165669.1 glycoside hydrolase family 19 protein [Archangium sp. Cb G35]

MSRGAWLALVAAVVLAVGVAVASGGGLLTLEQLRAIMPRLAQARAEELLSHLVAAMAEAGITTPRRKAAFLAQLAHESAEFRYFEELASGDAYEGRRDLGNTQPGDGRRYKGRGPIQLTGRNNYRDAGRALGVDLEGKPELAATPAVGFRTAAWFWRTRELNELADAGNFDAITKRINGGYNGKADRDAYHVRAQAALGAA

>WP\_283247258.1 glycoside hydrolase family 19 protein, partial [Corallococcus exiguus]

GTPGTSGGKAGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_304997775.1 glycoside hydrolase family 19 protein, partial [Corallococcus sp. AB032C]

GKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_301540719.1 glycoside hydrolase family 19 protein, partial [Corallococcus exiguus]

KGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_301540901.1 glycoside hydrolase family 19 protein, partial [Corallococcus exiguus]

DRGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_199729149.1 glycoside hydrolase family 19 protein, partial [Corallococcus sp. CA053C]

KGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQGVLG

>NOK38358.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exercitus]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTTAALAKANHIANPNKIYVGQKLTIPGAGGGSAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHISNPNKIFVGQKLTIPGRTGGTGGTSKPPPSTGGVNGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEELASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MDP9151424.1 hypothetical protein [Myxococcota bacterium]

MKRRRDLSPGESFQESVCSAAIGVRDALAHSERVASEIYSDMRGLSAARVPRLDERELEAVIRAFSRGDYVIFAANPPSRQHCEGGVSSEQLHAIMPSLSHDLTVAYLPLLNAAMLEAKITTPLRQAAFLAQLAHESGELRAFHEFHTGDQYEGRKDIGNTQPGDGRRFKGRGPIQVTGRATYRAAGSALGLPLEDQPELVATPEVGFRVAGWFWTAKHLDHLADARDFDGITHRVNGGFRGKASRDHYYGVAKRVLGVPEP

>WP\_140858041.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALATANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQATAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_284663406.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus sp. SDU36]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNPPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPIRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>WP\_279637941.1 glycoside hydrolase family 19 protein, partial [Corallococcus aberystwythensis]

GKGGVTAAQLRRIMPNLSQAKAEQYLPHLNKAMAEAKINTPRRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_120529290.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exercitus]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTTAALAKANHIANPNKIYVGQKLTIPGAGGGSAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHISNPNKIFVGQKLTIPGRTGGTGGTSKPPPSTGGVNGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>NBC44946.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exiguus]

MTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_121754207.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. AB030]

MTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGSGGTSKPPPSTGGVGGTPGTSSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_120564554.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. AB011P]

MTTYSVRSGDTLSGLAQRYNTSVASLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIYVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_167548591.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exiguus]

MIPSFPGVPFVTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_014400746.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus coralloides]

MTTYSVRSGDTLSGLAQRFNTSVASLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPPSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIYVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_232537448.1 glycoside hydrolase family 19 protein [Cystobacter fuscus]

MSRGAWLALVAAAVLGVGVLMWKGKDVVTLAQLRAVMPRLTEARAAELLPWLLAAMREAGVSTPARAAAFLAQLAHESGELRYFEELASGAAYEGRADLGNTQPGDGVRYKGRGPIQLTGRANYRAAGTALGLDLEGSPARVATPAVGFRTAAWYWRSRGLNELADAGRFDDITRRVNGGLNGKAERDAYHAKARAVLGVTA

>WP\_120577718.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. CA041A]

MTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGSGGTSKPPPSTGGVGGTPGTSSGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGRALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_141256531.1 MULTISPECIES: LysM peptidoglycan-binding domain-containing protein [unclassified Myxococcus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPDRIYAGQTLTIPGAGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTTVSALANANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQATAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_163999114.1 LysM peptidoglycan-binding domain-containing protein [Pyxidicoccus caerfyrddinensis]

MTTYSVRSGDTLGALARRFNTSTDKLAKANGISNPNKIFVGQKLVVDGFDAPRATSKGSGGSSYTVKSGDTLSGIAGRHGTTVGALQKANNISNPNLIRVGQKLTIPGSGGAAAPSKPSSGGGGSYTVKSGDTLSGIAGRYGTSVSALQKANNISNPNLIRVGQKLTIPGGGAAPGKPSNPPPVGGVNGPKPAPGGSAGVTVAQLRGVMPNLSEAKAKQYLPYLNQAMAEANITTPQRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADQGNFREVTRRINGGYNGMASREAYYHRAQNVF

>WP\_140878089.1 MULTISPECIES: LysM peptidoglycan-binding domain-containing protein [Myxococcus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRYGTSVGALATANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQATAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_140800514.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALATANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQATAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_140796183.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRYGTSVGALANANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQATAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_163779871.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus vastator]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>NVJ00283.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus sp. AM009]

MTTYSVRRGDTLSALAQRFKTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPDRIYAGQRLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>WP\_279636142.1 glycoside hydrolase family 19 protein, partial [Corallococcus terminator]

TPGTSGGKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPARAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQDVLG

>NVJ08093.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus sp. AM001]

MTTYSVRRGDTLSALAQRFKTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>WP\_128800147.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus coralloides]

MTTYSVRSGDTLSGLAQRFNTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANGIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSGGASYTVRSGDTLSGIAGRYGTTVGALQQANRIADPNKIQVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_201423155.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTIYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPDLIYAGQQLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPNLIYAGQRLTIPGGGGAAPSSGGGSYTVKSGDTLSGIAGRYGTSVGALASANNISNPNLIYAGQRLTIPGGGGASPTRPAPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_140870090.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGSLAKANNISNPDRIYAGQKLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTTVSALARANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_217917550.1 MULTISPECIES: LysM peptidoglycan-binding domain-containing protein [unclassified Myxococcus]

MFSGVCPPVTTYSVRRGDTLSALAQRFKTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPDRIYAGQRLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTSVSALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>WP\_301541145.1 glycoside hydrolase family 19 protein, partial [Corallococcus exiguus]

AQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_090491231.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus virescens]

MTIYSVRRGDSLSALAQRFNTSVSSLAKSNGISNPDLIYAGQKLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPDLIYAGQRLTIPGGGGASPSSGGGSYTVKSGDTLSGIAGRYGTSVGALARANNISNPNLIYAGQRLTIPGGGGASPTRPAPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>NOJ80135.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MTTYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPDRIYAGQRLTIPGTGGAAPSSPAPSSGGGSYTVKSGDTLSGIAGRHGTTVSALARANNISNPNLIYAGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_141588517.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus sp. AB056]

MTIYSVRRGDSLSALAQRFNTSVSSLAKSNGISNPDLIYAGQKLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPNLIYAGQRLTIPGGGGASPSSGGGSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPNLIYAGQRLTIPGGGGASPTRPAPNKPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>MBN8230280.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus macrosporus]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHITNPNKIYVGQRLTIPGAGGGASPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHISNPNKIYVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSGGKGGVTAAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_011557299.1 MULTISPECIES: LysM peptidoglycan-binding domain-containing protein [Myxococcus]

MTIYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPDLIYAGQQLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPDRIYAGQRLTIPGAGGAAPSSGGGSYTVKPGDTLSGIAGRYGTSVGALAQANNISNPNLIYAGQRLTIPGGGGASPTRPAPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>RKH89298.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB045]

MPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_002638152.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus hansupus]

MTTYSVRSGDTLGALAKRFNTSVSSLAKTNGISNPNLIFTGQKLRVPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTTVSALAKANNISNPNRIYAGQKLTIPGSGGAAPTKPSSGGGGGGSYTVKSGDTLSGIASRHGTTVSALARANNISNPNLIHVGQRLTIPGGGGASPTRPTPSQPPVGGVGGPKPPTGGSAGVTVGQLRAVMPNLSQAKAEQYLPYLNQAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGLADREMYYRRAQNVF

>WP\_141620909.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus sp. AB036A]

MTIYSVRRGDSLSALAQRFNTSVSSLAKSNGISNPDLIYAGQKLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPDLIYAGQRLTIPGGGGASPSSGGGSYTVKSGDTLSGIAGRYGTSVGALAKANNISNPNLIYAGQRLTIPGGGGASPTRPAPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>NNC15077.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_120647374.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus llansteffanensis]

MTTYSVRSGDTLSGLAQRFHTSVGTLQKTNHIANANLIRVGQKLSVPDSFQAAAPSKGGGKAGSYTVRSGDTLSGIASRHGTTVSALAKANHISNPNKIYVGQKLTIPGRSGGTGTSNPPPTTGGTGGVGGATGGTKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQGVLG

>WP\_206786638.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. NCRR]

MTTYSVRSGDTLSGLAQRFNTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANGIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIANPNKIYVGQKLTIPGRTGGTGGTSKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWSSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_120585817.1 MULTISPECIES: LysM peptidoglycan-binding domain-containing protein [Corallococcus]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQKLSVPDSFQAAAPSKAGAKAGSYTVRSGDTLSGIASRHGTTTGALAKANNISNPNKIYVGQKLTIPGKGGSAPVTPKPSSGGSTYTVRSGDTLSGIAGRHGTTVNALQQANNISNPNKIYVGQKLTIPGKSGGGGTTNPPPTTGGVGGTPGTSGGKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQDVLG

>WP\_120537710.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. CA047B]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQKLTVPDSFQAAAPSKAGAKAGSYTVRSGDTLSGIASRHGTTTGALAKANNISNPNKIYVGQKLTIPGKGGSAPVTPKPSSGGSTYTVRSGDTLSGIAGRHGTTVNALQQANNISNPNKIYVGQKLTIPGKSGGGGTTNPPPTTGGVGGTPGTSGGKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQDVLG

>WP\_216608962.1 LysM peptidoglycan-binding domain-containing protein [Myxococcus xanthus]

MWVRRLSVFRSLPPVTIYSVRRGDTLSALAQRFNTSVSSLAKSNGISNPDLIYAGQQLRIPDGFDAPRASGGGSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPDRIYAGQRLTIPGAGGAAPSSGGGSYTVKPGDTLSGIAGRYGTSVGALAQANNISNPNLIYAGQRLTIPGGGGASPTRPAPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPMRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRAQNVF

>WP\_267551838.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. BB11-1]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNGIANANLIRVGQRLTVPDSFQAAPSKGGSYTVRGGDTLSGIAGRHGTTTAALAKANNIANANKIYVGQRLTIPGKGGAAPVTQKPTSGGSTYTVRSGDTLSGIAGRHGTTVNALQQANNIANANKIYVGQKLTIPGRSGGGGTANPPPTTGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPQRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_267858054.1 LysM peptidoglycan-binding domain-containing protein [Pyxidicoccus sp. MSG2]

MTTYSVRSGDTLGALARRFNTTTDKLAKANGISNPNKIFVGQKLVVDGFDAPRATGGSSKGSSYTVKSGDTLSGIAGRHGTTVGALQKANNISNPNLIYAGQKLTIPGSGAAAPSKPASGGGGSYTVKSGDTLSGIAGRYGTSVSALQQANGISNPNKIYVGQKLTIPGGGASPGKPSNPPPVGGVNGPKPAPGGSAGVTVAQLRGVMPNLSEAKAKQYLPYLNQAMAEANITTPQRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADQGNFREVTRRINGGYNGMASREAYYRRAQNVF

>NNB96740.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exiguus]

MTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANGIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGSGGTSKPPPSTGGVGGTPGTSGGKAGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MBZ4334728.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. AS-1-12]

MTTYSVRSGDTLSGLAQRFNTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQRLTIPGAGGGAAPVTSKPPPSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIANPNKIYVGQKLTIPGRTGGTGGASKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_121762487.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. AB038B]

MTTYSVRSGDTLSGLAQRFSTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANGIANPNKIYVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIQVGQKLTIPGRTGGSGGTSKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MBE4752116.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus soli]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNGIANANLIRVGQRLTVPDSFQAAPSKGGSYTVRGGDTLSGIAGRHGTTTAALAKANNIANPNKIYVGQRLTIPGKGGAAPVTQKPTSGGSTYTVRSGDTLSGIAGRHGTTVNALQQANDIANPNKIYVGQKLTIPGRSGGGGTANPPPTTGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPQRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>MBN8470881.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus exiguus]

MTTYSVRSGDTLSGLAQRFNTSVSSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANGIANPNKIQVGQRLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALQQANHIADPNKIYVGQKLTIPGRTGGSGGTSKPPPSTGGVGGTPGTSGGKGGVTVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_013936967.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus macrosporus]

MTTYSVRRGDTLSALAQRFKTSVSSLAKTNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPKRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRALNVF

>MBL8911853.1 peptidoglycan-binding protein [Archangium sp.]

MIRPALPSPVPLPPTTPLPPTPGQIKRAENQLKKLGFSPGAVDGRATAAFTNALKEFQTAWGLPSTGTLDDATRAKLDHTIERKADSKGKLISIGEKSKRIAEFENQLARLGYSVGKRDGIYSRETAEAVKAFRADQKELKDGFGSVREGALKVLAREANALSHAPERRRVKETAASRQLDRATLDASRLGVREGDHSRVVANIQQHLRAAGFDPQRVSGTFDERTTGALKAFQRRSKLEPTGVVDSKTWRELRKARMEATSGTSPAQRLNERSGAVKASEKLLKKLGFNPGKVDGLFDKRTEKAVRAFERQQHMKVDGAIGTGQLAKMKKLSKGVTLGQLHAIMPSLPMSKARAYLPLLNRAMAEANINTRQRKAMFIAQLAHESGSLKFFEELASGAAYEGRLDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGLPLEAHPKMAARPSVGFRTATWFWSSRGLNALADRGDFIGVTRRINGGTNGLADRQAYYRRALKVIH

>WP\_224243534.1 glycoside hydrolase family 19 protein [Cystobacter gracilis]

MSTYSVRRGDTLSSLAKRFGTTVSSLAKANNIKNVNLIRVGQKLTFKDGFDRPTTRPSTRPAGGTTQSGGAARPGGTTGTGGTQSSAPVGGPAPVGNGKGVTVEQLRKIMPSLSQAKAEQYLPHINAAMQEAGITTKKQQAAFLAQLGHESGGLRYMEEIASGAAYEGRRDLGNTQPGDGTRFKGRGPIQLTGRANYRAAGKALGLDLENNPRLAADPSVGFRTAAWFWNSRNLNSLAEAGNFREVTRRINGGYNGLADREAYYQRALNAL

>WP\_120629827.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sicarius]

MKTYSVRSGDTLSGLAQRFHTSVGTLQKTNRIANANLIRVGQRLSVPDSFQAAAPSKGGSKASSYTVRSGDTLSAIAGRHGTTVGALAKANHISNPNKIYVGQKLTIPGRSGGTGTSKPPPTTGGTGGTGSVGGATGGSKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFIAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQGALG

>MCP3137254.1 LysM peptidoglycan-binding domain-containing protein [Pyxidicoccus xibeiensis]

MTTYSVRSGDTLGALARRFNTSVDALAKANGIANPNKIYAGQKLNVPDGFDAPRVSGSGGGSSYTVKSGDTLSGIAGKFGTSVSALAKANGISNPNRIFAGQRLTIPGSGGAAPSSPAPSGGSRTHTVKSGDTLSGIAGKYGTSVGALQRANNISNPNLIYVGQKLTIPGGGAAPGQPAPNPPPVGGVGGPKPVPGGSAGVTVAQLRRVMPNLSQAKAEQYLPHLNRAMAEANITTPQRKAAFLAQLAHESGELRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPARAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMASREMYYRRAQDVF

>WP\_095961344.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus macrosporus]

MTTYSVRRGDTLSALAQRFKTSVSSLAKTNGISNPNLIYAGQQLRIPDGFDAPRASGGGRAASSYTVKSGDTLSGIAGRHGTSVGALAKANNISNPDRIYVGQKLTIPGSGGAAPTRPSTGGGGGGSYTVKSGDTLSGIAGRHGTTVGALAKANNISNPNLIYVGQRLTIPGGGGASPTRPTPNQPPVGGVGGPKPPTGGSAGVTVQQLRAVMPNLSQAKAEQYLPHLNRAMAEANITTPKRKAAFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGNPQRAKDPDVAFRIAGWYWSSRNLNTYADAGNFREVTRRINGGYNGMADREMYYRRALNVF

>RKH52170.1 glycoside hydrolase family 19 protein [Corallococcus aberystwythensis]

MPNLSQAKAEQYLPHLNKAMAEAKINTPRRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_044191749.1 glycoside hydrolase family 19 protein [Hyalangium minutum]

MIHNIRRGDTLSALAQKYGTSVSALAKANNIQNPNLIIAGKKLTIPDGFDRPGQRPATAPPGMPGSSASGRPGSTPSTTQAGPVAGPTAPAGSGVTVDQLKKIMPNLSDAKAREYLPHINNAMAEAGITTKNQKAAFLAQLAHESGQLRYMEEIASGSAYEGRRDLGNTQPGDGTRFKGRGPIQLTGRNNYRAAGQALGIDLENNPRRAADPDVGFRTAAWFWKSRGLNSLAESGNFREVTRRINGGYNGLSDRQQYYNRALSVL

>WP\_143907716.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. Z5C101001]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKGGSYTVRSGDTLSGIAGRHGTTVAALAKANRIADPNKIYVGQKLTIPGASGGGGAAPVPSKPTGGATYTVRSGDTLSGIAGRYGTSVGALQQANHIADPNKIYVGQKLTIPGRSGGAGTSNPPPTTGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGMRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWNSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>NNB90683.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>RKG92766.1 glycoside hydrolase family 19 protein [Corallococcus sp. CA053C]

MPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQGVLG

>NBD12723.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus silvisoli]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIANANLIRVGQRLTVPDGFQAAPSKGGSYTVRSGDTLSGIAGRHGTTVAALAKANHIADPNKIYVGQKLTIPGASGGGGAAPVPSKPTGGATYTVRSGDTLSGIAGRYGTSVGALQQANHIADPNKIYVGQKLTIPGRSGGAGTSNPPPATGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGMRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWNSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_206723184.1 LysM peptidoglycan-binding domain-containing protein [Pyxidicoccus parkwaysis]

MTTYSVRSGDTLGALARRFNTSVDKLAKANNISNPNLIYVGQKLVVDGFDAPRAAGGGSGGSSYTVKSGDTLSGIAGRYGTSVSALQQANGIKNPNLIYAGQKLTIPGSGGAAPTKPSGGGGGGSYTVKSGDTLSGIAGRYGTSVSALQQANGIKNPNLIYVGQKLTIPGGGSSPGKPSNPPPVGGVNGPKPAPGGSAGVTVAQLRGVMPNLSEAKAKQYLPYLNQAMAEANITTPQRKAMFLAQLAHESGELRYMEEIASGAAYEGRSDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGRALGIDLEGHPERAKDPDVAFRIAGWYWSSRNLNSYADAGNFREVTRRINGGYNGMASREAYYRRAQNVF

>WP\_223640269.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. EGB]

MTTYSVRSGDTLSGLAQRFNTSVASLQKTNHIANANLIRVGQRLTVPDGFQAAPSKAGSYTVRSGDTLSGIAGRHGTTVGALAKANHIANPNKIYVGQKLTIPGAGGGAAPVTSKPPSSGGASYTVRSGDTLSGIAGRYGTTVGALAQANHIANPNKIYVGQKLTIPGRAGGTGGTSKPPPSTGGVGGTPGTSGGKGGVSVAQLRRIMPNLSQAKAEQYLPHLNKAMAEAHINTPRRQEMFLAQLAHESGELRYMEEIASGAAYEGRADLGNTQPGDGKRYKGRGPIQLTGRANYRAAGRALGIDLEGHPERAKDPDVAFRIAGWYWSSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_164019072.1 LysM peptidoglycan-binding domain-containing protein [Pyxidicoccus trucidator]

MTTYSIRSGDTLGAIARRFNTSVDKLAKANGISNPNKIYAGQKLVVDGFDAPKATGGGSGGSSYTVKSGDTLSGIAGRHGTTVAALAQANGISNPNRIFAGQRLTIPGSGGAAPSAPASGGGGGSSYTVRSGDTLSGIAGRHGTSVGALQQANGIRNPNLIYVGQKLTIPGGGAAPGRPSNPPPVGGVGGPKPAPGGSAGVTVAQLRGVMPNLSQAKAEQYLPHLNQAMAEANITTPQRKAMFLAQLAHESGQLRYMEEIASGAAYEGRRDLGNTQPGDGVRYKGRGPIQLTGRANYRAAGQALGIDLEGNPARAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGMADREAYYRRAQDVF

>MCU0696518.1 LysM peptidoglycan-binding domain-containing protein [Myxococcaceae bacterium]

MHTHRIRPGETLTMVAKANRTTVERLVAANGLRNADVVPAGTVLRLPDHFEPARTGPGAVRPSTTPTSQPSRGVTVDQLRRIMPRLPLADARRYLPFLNAAMAEVNITTPKRQAAFLAQVSHESGQLRFFEEIASGAAYEGRRDLGNVRPGDGRRFKGRGPIQLTGRANYRDAGRALGVDLENRPTRAADPDIAFRVAGWYWKTRDLNPLADRGDFVEITRRINGGVNGLADRQQAWARARAVLQA

>RKG69643.1 glycoside hydrolase family 19 protein [Corallococcus terminator]

MPNLSQAKAEQYLPHLNKAMAEAKINTPKRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPARAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQDVLG

>WP\_267572988.1 LysM peptidoglycan-binding domain-containing protein [Corallococcus sp. bb12-1]

MTTYSVRSGDTLSGLAQRFNTSVGSLQKTNHIPNANLIRVGQKLTVPDSFQAAAPSGAGAKAGSYTVRSGDTLSGIAGRNGTTTVALAKANNISNPNKIYVGQKLTIPGKGGAAPVTPKPSSGGSTYTVRSGDTLSGIAGRHGTTVNALQQANNISNPNKIYVGQKLTIPGKSGGGGTTNPPPTTGGVGGVPGSSGGKGGVSVAQLRKIMPNLSQAKAEQYLPHLNKAMAEAKINTPQRQEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGNPARAKDPDVAFRIAGWYWGSRNLNSYADAGNFREVTRRINGGYNGMASREMYYRRAQDVLG

>WP\_199738985.1 glycoside hydrolase family 19 protein, partial [Corallococcus sp. CA054B]

SYTVRSGDTLSGIAERHGTTVGAQAKAEQYLPHLNKAMAEANINTPRRKEMFLAQLAHESGELRYMEEIASGAAYEGRKDLGNTQPGDGKRYKGRGPIQLTGRANYRAAGKALGIDLEGHPERAKDPDVAFRIAGWYWQSRNLNSYADAGNFREVTRRINGGYNGLASREMYYRRAQDVLG

>WP\_002616384.1 LysM peptidoglycan-binding domain-containing protein [Stigmatella aurantiaca]

MSIHPVGPGETLTGIARKYNTTVNKLAQDNGIANPDKIQVGQKLNVSGSASAARPGTDSPQNYTVRAGDTLSGIAQKFGTTTGALAKANNISNPNLIRVGQKLTIPGASASRPPSPPPSQSYTVRSGDTLSGIAQRFGTTTNALAKANNISNPNLIRVGQKLTIPGGTKPGSQDGFDPPATGGKPSTGPVTGPGNGAGTAGGVTVAQLRKVMPNLSQAKAEQYLPHLNRAMAEAKINTPKRQAAFLAQLAHESGEFRYMEEIASGAAYEGRKDLGNTQPGDGVRFKGRGPIQLTGRSNYRAAGKALGIDLENNPKRAADPDVGFRTAAWFWNSRNLNTYADAGNFREVTRRINGGYNGLASREAYYQRALNVLS

>WP\_245682573.1 peptidoglycan-binding protein [Archangium gephyra]

MSLPREELRLGAQGAAVKLLQRALVELGFLPSQPGSVDGDFGPKTKAALEAFQATEKLPRDGAYTQKAREAFERRRSGGGGGLSMAQLCTIMPRLKPDKAAQYLPFLNAAMNEAEINTSLRRAAFLAQLAHESAQLRFFEELASGEAYEGRRDLGNTQKGDGVRYKGRGPIQLTGRNNYRKAGLALGLDLEGFPQRAADPDVGFRVAGWFWKSNGLNPLADAGCFDAITRRINGGYNGKADRDAHYRGALQVLGDGQPLKSV

>KFA88912.1 hypothetical protein Q664\_38290 [Archangium violaceum Cb vi76]

MTVRLNEKQLREIMPRLLASRAGECLPHLDAAMVEADILTPQRQAAFLAQLAHESAELRFFEELATGEAYEGRRDLGNTRPGDGMRYKGRGPIQLTGRNNYRAAGRALGIDLEGNPQRAADVDVGFRVAAWFWTSRGLNALADVGDFREITRRINGGFNGLAQREAYYRRALEVLTH

>WP\_143898266.1 MULTISPECIES: glycoside hydrolase family 19 protein [Corallococcus]

MTNTLMFRCLSLLGMVGAVGGCSGPEMGGEPPEATGRVESPAIVSTITEGDYVIRSARTNKCIDVASSSTADGATVQQWDCNGTNAQKFHISPTSGGYFKIINVNSGKGLDIKEVSTAENALVHQWSYVGGNNQQFRFVNRGGTQFSFHPRHTDMAVDLSWGSPDNGTLLVQYPYQDRDNQRWTFDLVSGGGGGGGGSGFAGILTRDTFNAMFPSRNGFYTYDALIAAAAGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCGCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANP

DLLAQDANAAWRTGFWFWTTQTGAGSMTAHNAIVNGAGFGETIRTINGSLECNGRNPTQVKSRVDAYKNFCALLGVSPGNNLEC

>WP\_171446054.1 glycoside hydrolase family 19 protein [Corallococcus carmarthensis]

MNHKGMIRGLSLLGVVGVLGGCSGPETGGTPPEATGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSDGFFKIINVNSGKALDIAGVSTAENAVLHQWSYVGGANQQFQFVNRGGTQFSFHPRHTGMAMDLSYGSPDNGTLIVQYPFYADRDNQRWTFDLVSGGGGGGGSGFAGILTRDTFNAMFPSRNGFYTYDALIAAAATFPSVATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCSCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSLECYGRNPGQVQSRIDKYQQFCALLGVSPGNNLGC

>WP\_217279631.1 chitinase, partial [Corallococcus exiguus]

TGGGGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_169820487.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSLECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_120600556.1 glycoside hydrolase family 19 protein [Corallococcus carmarthensis]

MNHKGMIRGLSLLGVVGVLGGCSGPETGGTPPEATGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSDGFFKIINVNSGKALDIAGVSTAENAVLHQWSYVGGANQQFQFVNRGGTQFSFHPRHTGMAMDLSYGSPDNGTLIVQYPFYADRDNQRWTFDLVSGGGGGGGSGFAGILTRDTFNAMFPSRNGFYTYDALIAAAATFPSVATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSLECYGRNPGQVQSRIDKYQQFCALLGVSPGNNLGC

>WP\_121752393.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB030]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGGGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_172813285.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_120566712.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB011P]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSADNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_139916056.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPAQVKSRVDTYKHFCNLLGVSPGNNLEC

>WP\_120576785.1 glycoside hydrolase family 19 protein [Corallococcus sp. CA041A]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTNTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_121714621.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB045]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSADNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGVPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVKSRVDTYKHFCSLLGVSPGNNLEC

>WP\_120648604.1 glycoside hydrolase family 19 protein [Corallococcus llansteffanensis]

MANTLGFRCLSLLGIVGALSGCSGAEPSGESPEATGQVESPAIVSSITEGDYVIRSAMTNKCIDVASSSTADGAKVQEWDCNGTNAQKFHISPTSDGYFKIINVNSGKGLDIQGVSTAQNALVHQWSYVGGANQQFRFVNRGGTQFSMQLRHTDMAVDLYWGSAENGTSLVQYPYTGGANQHWTFDLVSGGGGGTGFGGILTRDTFNAMFPSRNAFYSYDALVAAAAGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCFCAAGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGTMTAHNAIVNGAGFGETIRTINGSLECNGRNPGQVQSRIDAYVRFTGMLGVSPGNNLGC

>WP\_120531197.1 MULTISPECIES: glycoside hydrolase family 19 protein [Corallococcus]

MANTLMFRCLSLMGMVGALGGCSGAEPSGEAPEALGQQESPAIVSSIVEGDYVIRSAMTNKCIDVASSSTADGAKVQEWDCNGTNAQKFHISPTSGGYFKIINVNSGKGLDVKDVSTAQNAIIHQWSYLGGNNQQFRFVNRGGTQFSMHLRHTDMAVDLSWGSADNGTPLLQYPYGNTANQHWTFDLVSGGGGGGTGFGGILTRDTFNAMFPSRNGFYTYDALIAAASGFPGLATTGDTDTRKREVAAFLANVNHETGGLVYIEEINKADYCDTSWGPPGCFCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSRECNGANPGQVQSRIDAFVRFCGMLGVSPGNNLGC

>QAT82978.1 class I chitinase [Corallococcus coralloides]

MYESTSQEFLHLLAVLTGDVMSHKGMIRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYLDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPYYADRDNQRWTFDKVSGGGSGGSGFGGILTRDMFNTMFPSRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>NNC09558.1 chitinase [Corallococcus exiguus]

GGGGGSGFGGILTRDTFNTMFPSRNGFYTYDALISAANSFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>NOJ92413.1 chitinase [Corallococcus coralloides]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYLDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPFYADRDNQRWTFDKVSGGGSGGSGFGAILTRDMFNTMFPSRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>WP\_128795205.1 glycoside hydrolase family 19 protein [Corallococcus coralloides]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYLDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPYYADRDNQRWTFDKVSGGGSGGSGFGGILTRDMFNTMFPSRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>RYZ38985.1 chitinase, partial [Myxococcaceae bacterium]

GGGTGFGGILTRDMFNAMFPSRNGFYTYDALIAAASGFPGLATTGDTDTRKREVAAFLANVNHETGGLVYIEEINKGDYCDPSWGPPGCSCAPNKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGQTIRTINGSVECDGRNPGQVQSRIDAFVRFCGMLGVSPGNNLGC

>WP\_171434869.1 glycoside hydrolase family 19 protein [Corallococcus exercitus]

MSHKGIIRGLSLLGVVGVLGGCSGPEAEGNPPEATGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIAGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTQIVQYPYYADRDNQRWTFDLVSGGGSGGTGFAGILTRDMFNAMFPSRNAFYSYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCSCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPAQVQSRIDKYLQFCSMLGVSPGANLGC

>WP\_120608750.1 glycoside hydrolase family 19 protein [Corallococcus sp. CA053C]

MANTLGFRCLSLLGIVGALSGCSGAEPSGESPEATGQVEGAAVVSSITEGDYVIRSAMTNKCIDVASSSTADGAKVQEWDCNGTNAQKFHISPTSDGFFKIINVNSGKGLDIQGVSTAQNALVHQWSYVGGANQQFRFVNRGGTQFSMQLRHTDMAVDLYWGSAENGTSLVQYPYTGGANQHWTFDLVSGGGGTGFGGILTRETFNAMFPNRTAFYSYDALVAAAAGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCTCAAGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGSMTAHNAMVNGAGFGETIRTINGSLECNGRNPGQVQSRIDAYVRFTGMLGVSPGNNLGC

>WP\_120618872.1 glycoside hydrolase family 19 protein [Corallococcus sp. CA049B]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYLDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPYYADRDNQRWTFDKVSGGGSGGSGFGAILTRDMFNTMFPSRNGFYTYDALIAAANGFPGLATTGDSDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>WP\_120524474.1 glycoside hydrolase family 19 protein [Corallococcus exercitus]

MNHKGMIRGLSLLGVVGALGGCSGPEAEGTPPEATGRVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIAGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTQIVQYPYYADRDNQRWTFDLVSGGGSGGTGFAGILTRDMFNAMFPSRNAFYSYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKADYCDTSWGPPGCSCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPAQVQSRIDKYLQFCSMLGVSPGANLGC

>WP\_267575772.1 glycoside hydrolase family 19 protein [Corallococcus sp. bb12-1]

MANTLMFRCLSLLGVVGALGGCSGEEPSGGAPETLGQQESAAIVSSIVEGDYVIRSAMTNKCIDVASSGTADGTKVQQWDCNGTNAQKFHISPTSGGYFKIINVNSGKGLDVVGVSTAANAVIHQWSYLGGNNQQFRFVNRGGTSFSMHLRHTDMAVDLSWGSPDNGTLLLQYPYGNTANQHWTFDLVSGGGGGGGTGFGGILTRETFNAMFPSRNGFYTYDALISAASGFPGLATTGDADTRKREVAAFLANVNHETGGLVYIEEINKADYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLSQDANAAWRTGFWFWTTQTGAGSMTAHNAIVNGAGFGQTIRTINGSRECNGANPGQVQSRIDAFVRFCGMLGVSPGNNLGC

>WP\_206880513.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSSITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSYGSPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYVQFCSLLGVSPGNNLGC

>WP\_169830916.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGGGGGSGFGGILTRDTFNTMFPSRNGFYTYDALISAANSFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>WP\_043322686.1 glycoside hydrolase family 19 protein [Corallococcus coralloides]

MSHKGMFRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFFKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHARHTGMAMDLSWGSFDNGTLIVQYPFYADRDNQRWTFDKVSGGGSGGGSGFGGILTRDMFNTMFPNRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVHIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>AFE04038.1 class I chitinase [Corallococcus coralloides DSM 2259]

MYESTSQEFLHLLVVPTGDVMSHKGMFRGLSLLGVVGALAGCSGPEAGDTAPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFFKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHARHTGMAMDLSWGSFDNGTLIVQYPFYADRDNQRWTFDKVSGGGSGGGSGFGGILTRDMFNTMFPNRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVHIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>WP\_120587775.1 glycoside hydrolase family 19 protein [Corallococcus sp. CA054B]

MSHKGMFRGLSLLGVVGALAGCSGPEAGDTTPETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPFYADRDNQRWTFDKVSGGGSGGGSGFGGILTRDMFNTMFPNRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVHIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>WP\_126934498.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB018]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGGGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYQQFCSLLGVSPGTNLGC

>WP\_120541618.1 glycoside hydrolase family 19 protein [Corallococcus terminator]

MANTLMFRCLSLLGVVGALGGCSGEPSGEAPETLGQQESPAIVSSIVEGDYVIRSAMTNKCIDVASSGTADGTKVQQWDCNGTNAQKFHISPTSGGYFKIINVNSGKGLDVQGVSTAPNAVIHQWSYVGGNNQQFRFVNRGGTSFSMHLRHTDMAVDLSWGSADNGTLLLQYPYGYTANQHWTFDLVSGGGGGGGGTGFGGILTRDTFNAMFPSRNGFYTYDALISAAGSFPGLATTGDADTRKREVAAFLANVNHETGGLVYIEEINKGDYCDTSWGPPGCSCAGGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLIAQDANVAWRTGFWFWTTQTGAGSMTAHNAIVNGAGFGQTIRTINGSLECDGRNPGQVQSRIDAYVRFCGMLGVSPGNNLGC

>WP\_171413130.1 glycoside hydrolase family 19 protein [Corallococcus exercitus]

MSHKGMVRGLSLLGVVGVLAGCSGPEAGDAAPGAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIAGVSTAENAVLHQWSYVGGANQQFQFINRGGTQFSFHVRHTGMAMDLSWGSFDNGTQIVQYPFYADRDNQRWTFDLVSGGGSGGTGFAGILTRDMFNAMFPSRNAFYSYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKAPYCDTSWGPPGCSCAPGKQYYGRGPMQLSWNGNYCAAGNALGLPLQANPELLAQDANAAWRTGFWFWTTQTGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPAQVQSRIDKYLQFCSMLGVSPGGNLGC

>WP\_121778560.1 MULTISPECIES: glycoside hydrolase family 19 protein [Corallococcus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPSRNGFYTYDALISAANSFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>WP\_120595231.1 MULTISPECIES: glycoside hydrolase family 19 protein [Corallococcus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSYGSPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>WP\_172816569.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMIRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGVQFSFHPRHTGMAMDLSYGLPDNGTLIVQYPFYADRDNQRWTFDKVSGGGGGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>WP\_171806241.1 glycoside hydrolase family 19 protein [Corallococcus exiguus]

MSHKGMFRGLSLLGVVGALAGCSGPEAGDTAQEAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSYGSPDNGTLIVQYPFYADRDNQRWTFDKVSGGGTGGGSGFGGILTRDMFNTMFPGRNGFYTYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGTNLGC

>WP\_120555004.1 glycoside hydrolase family 19 protein [Corallococcus aberystwythensis]

MNHKGMIRGLSLLGVVGALGGCSGPDSVEGSPEATGQVESAAVVTTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWSYVGGNNQQFQFINRGGTQFSFHPRHTGMAMDLSYGLPDNGTPIVQYPFYADRDNQRWTFDLVSGGGSGGGSGFAGILTRDMFNTMFPSRNGFYSYDALIAAANGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINRGEYCDTSWGPPGCSCAPGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTAFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGGNLGC

>WP\_206799074.1 MULTISPECIES: glycoside hydrolase family 19 protein [unclassified Corallococcus]

MSHKGMIRGLSLLGVVGALAGCSGPEAEDTAPGAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIVGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPYYADRDNQRWTFDKVSGGGSGGTGFGGILTRDMFNTMFPGRNGFYTYDALIAAANTFPSVATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSLLGVSPGNNLGC

>WP\_223741138.1 glycoside hydrolase family 19 protein [Corallococcus sp. AS-1-12]

MSHKGIIRGLSLLGVVGALAGCSGPETGDTAQETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFFKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTQIVQYPYYPDRDNQRWTFDKVSGGGGGGTGFGGILTRDMFNTMFPSRNGFYTYDALIAAANTFPSVATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCFCAAGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSMLGVSPGNNLGC

>WP\_223642882.1 glycoside hydrolase family 19 protein [Corallococcus sp. EGB]

MSHKGVIRGLSLLGVVGALAGCSGPETGDTAQAAVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFYKIINVNSGKALDIEGVSTAENAVLHQWTYVGGANQQFQFINRGGVQFSFHPRHTGMAMDLSWGSPDNGTLIVQYPFYPDRDNQRWTFDLVSGGGGGGGTGFAGILTRDTFNTMFPNRNGFYTYDALIAAANTFPGLATTGDTDTRKREVAAFLANASHETGGLVYIEEINQTSSYCDTSWGPPGCTCAPNKKYFGRGPMQLSWNGNYCAAGNALGLPLQANPELLAQDANASWRSGFWFWTTQTGAGSMTAHNAMVNGAGFGETIRTLNGSLECNGRNPAQVKSRVDAYKYFCSLLGVSPGANLEC

>WP\_223765015.1 glycoside hydrolase family 19 protein [Corallococcus sp. AS-1-6]

MSHKGIIRGLSLLGVVGALAGCSGPETGDTAQETVGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFFKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTLIVQYPYYADRDNQRWTFDKVSGGGSGGTGFGGILTRETFNTMFPSRNGFYTYDALIAAANTFPSVATTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCFCAAGKRYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSMLGVSPGSNLGC

>WP\_120625646.1 glycoside hydrolase family 19 protein [Corallococcus sicarius]

MANTLGFRCLSLLGIVGALSGCSGAEPSGESPEATGQVESPAIVSSITEGDYVIRSAMTNKCVDVASSSTADGAKVQEWDCNGTNAQKFHISPTSDGYFKIINVNSGKGLDIQGVSTAQNALVHQWSYVGGANQQFRFVNRGGTQFSMQLRHTDMAVDLYWGSAENGTSLVQYPYTGGANQHWTFDRVSGGGGGTGFGAILTRETFNAMFPNRTAFYSYDALIAAAAGFPGLATTGDTDTRKREVAAFLANVSHETGGLVYVEEINRGEYCDTSWGPPGCFCAAGKRYYGRGPIQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGSMTAHNAMVNGAGFGETIRTINGSVECYGRNPGQVQSRIDAYLRFTGMLGVSPGNNLGC

>WP\_120547479.1 glycoside hydrolase family 19 protein [Corallococcus sp. AB049A]

MSHKGMIRGLSLLGAMGALAGCSGPEAGGDAPDTLSQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTQIVQYPYYADRDNQRWTFDKVSGGGSGGTGFGAILTRDMFNTMFPGRNGFYTYDALIAAAATFPSVGTTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNNAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSMLGVSPGGNLGC

>WP\_207051594.1 RICIN domain-containing protein [Corallococcus macrosporus]

MGHKGMIRGLSLLGVVGVLGGCSGPEAESTPPEATGQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFRISPTSGGFWKIINVNSGKALDIAGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHVRHTGMAMDLSWGSFDNGTQIVQYPFYADRDNQRWTFDKVSGGGTGGSGFGAILSRDLFNSMFPGRNGFYTYDALIAAANTFPGLATTGDTDTRKREVAAFLANVSHETGGLVYIEEINRGLYCDTSWGPPGCSCAPGKQYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGSMTAHNAIVNGAGFGETIRTINGSVECYGRNPGQVQSRIDKYLQFCSMLGVAPGGNLGC

>WP\_121769062.1 glycoside hydrolase family 19 protein [Corallococcus interemptor]

MSHKGMIRGLSLLGAMGALAGCSGPEAGGDAPDTLSQVESAAVVSTITEGDYVIRSVRTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHISPTSGGFWKIINVNSGKALDIQGVSTAENAVLHQWTYVDGANQQFQFINRGGTQFSFHPRHTGMAMDLSWGSFDNGTQIVQYPYYADRDNQRWTFDKVSGGGSGGTGFGAILTRDMFNTMFPGRNGFYTYDALIAAAATFPSVGTTGDTDTRKREVAAFLANVSHETGGLVYIEEINKGDYCDTSWGPPGCSCAPGKRYFGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQNGAGSMTAHNAIVNNAGFGETIRTINGSVECYGRNPGQVQSRIDNYLRFCSMLGVSPGGNLGC

>WP\_193347200.1 MULTISPECIES: RICIN domain-containing protein [Corallococcus]

MANTSGFRCLSLLGIVGALGGCSGPEAPGESPEATGQVERPAIVSTITEGDYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQKFHVAPTTNGYFKIINVNSGKGLDVQGVSTAQNAIIHQWSYVGGANQQFRFVNRGGTQFSMHLRHTDMAVDLSWGSADNGTPLLQYPYGGTANQHWSFDRVSGGGGGGGTGFGGILTRETFNAMFPNRHGFYTYDALVSAAASFSGLATTGDADTRKREVAAFLANASHETGGLVHIEEINKGDYCDTSWGPPGCFCAAGKRYFGRGPMQLSWNGNYCAAGIALGLPLQANPDLLAQDANAAWRAGFWFWTTQTGAGSMTAHNAIVNGAGFGETIRTINGSRECNGGNPGQVQSRIDTYVRFCGMLGVSPGNNLGC

>WP\_047857615.1 RICIN domain-containing protein [Archangium gephyra]

MTRESLYRGLSLLGVVGALSGCALEAPESSEEISRTESAVIVSSITEGDYVIRSAMTQKCIDISASSTADGAKVQEWDCNGTNAQKFHLAPTSDGYWRIINVNSNKVLDIKDVSTAPNALVHQWSYVGGANQQFKFVARGNNQFSIHARHTDMAIDLYWGSADNGTILVQYPYSGGANQLWTFDNVGGGGTGGSGFGAILSRDMFNTMFPNRNPFYTYDALVAAASTFPGLATTGDTDTRKREVAAFLANVSHETGGLVHVEEINKAVYCDTSWGPPGCGCAAGKWYYGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANASWRSGFWFWMTQTGAGTMTAHNAMVNNAGFGETIRTINGALECYGRNPGQVQSRIDTYLRFTSLLGVSPGSNLGC

>WP\_073561246.1 glycoside hydrolase family 19 protein [Archangium sp. Cb G35]

MTREFVYRGLSLLGVVGALSGCALEAPESTEEISRTESAVIVSSITEGDYVIRSAMTQKCIDIASSSTADGAKVQQWDCNNTNAQKFRISPTSDGYWRIINVNSNKGLDIKEVSYAENAQVHQWAYLGGANQQFKFVPRGNNQFSIHPRHTDMALDLYWGSADNGTIIVQYPYTDRANQRWTFDKVGGGGGGGSGFGAILSRATFDTMFPNRNPFYTYDALVAAASTFPGLATTGDTDTRKREVAAFLANVSHETGGLVHIEEINKAAYCDTSWGPPGCSCAPGKWYYGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWMTQTGAGNMTAHNAMVNNAGFGETIRTINGSLECYGRNPGQVQSRIDTYLRFTSLLGVNPGTNLGC

>WP\_043410178.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MTREFVYRGLSLLGVVGALSGCAMEASESTEEISRVESAAIVSSITEGDYVIRSAMTQKCIDISSSSTADGAKVQQWDCNNTNAQKFRISPTSDGYWRIINVNSNKGLDIKEVSYAENAQVHQWSYLGGANQQFKFVPRGNNQFSIHARHTDMALDLYWGSADNGTIIVQYPYSDRANQRWTFDKVDGGGSGGSGFGAILSRATFDTMFPNRNPFYTYDALVAAASTFPGLATTGDTDTRKREVAAFLANVSHETGGLVHIEEINKAAYCDTSWGPPGCSCAPGKWYYGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRTGFWFWMTQTGAGNMTAHNAMVNNAGFGETIRTINGALECYGRNPGQVQSRIDTYLRFTGLLGVNPGSNLGC

>WP\_267537219.1 glycoside hydrolase family 19 protein [Archangium lansinium]

MVRKSLYRSVSLLGVLGALSGCAVEELKSSEESAQTESAVIVSSITEGDYVIRSAMTQKCIDISSSSTADGAKVQEWDCNGTNAQKFHISPTSDGYWKIINVNSNKGLDIKEVSTAQNALVHQWTYGGGANQQFKFVARGNNQFSIHARHTDMAIDLYWGSAENGTILVQYPYTGGANQLWTFDKLGGSGATGLGAILSASMFNTMFPNRNPFYTYDALIAAASTFPGFATTGDTDTRKREVAAFLANVSHETGGLMYVEEINKAAYCDTSWGPPGCSCASGKWYYGRGPMQLSWNGNYCAAGNALGLPLQANPDLLAQDANASWRSGFWFWMTQTGAGSMTAHNAMVNNAGFGETIRTINGSLECYGRNPAQVQSRVDTYLRFTNLLGVSAGGNLGC

>WP\_242515145.1 glycoside hydrolase family 19 protein [Sorangium cellulosum]

MSHQLGIIPGSFLSLAFIAAAVSASGCLVETSLDEEGFDSHEAAMCSSAPGWAEGVAYTIGSVVSYGGKSYSCRQSHTSLAGWTPAAVPALWQETGTCSGSSTSSSSSGGNGSGSGGNGSGCSYPAWQQGKNYRTGDIVIFNGSAYVAEHDNPGYDPTISTWFWDPHAGCGGSGSGSGSGGGGGGGGSGFGAILSESMFNTMFPARNPFYMYQALIAAALTFPGLATTGDADTRKREVAAFLANVSHETGGLVYVEEIAKAPLCDTSWGPPGCGCAPGKSYYGRGPMQLSWNGNYCAAGNALGLPLQSNPDLLAQDANAAWRSAFWFWTTQTGAGAMTAHDAIVTGAGFGETIRTINGALECNGRNPAQVQSRVNRYLQFTRLLGVSPGDHTGC

>WP\_257452951.1 glycoside hydrolase family 19 protein [Archangium sp. CY-1]

MSRMSVYRCLSLLGVVGGLGGCAANELEGAEELAQLESAAIVSSITEGDYVIRSAMTNKCVDIASSSTADGAKVQQWDCNGTNAQKFHISPTSDGYWKIINVNSNKALDIKEVSTAQNALFHQWTYVGGNNQQFKFVARGNNQFSIHARHTDMAMDLYWGSANNGTEYVQYPYTGTANQLFTFDKAGGTPGNGLGAILSESTFNSMFPGRNPFYSYNALISAAATFPSFATTGDTDTRKREVAAFLANIAHETGNLVYIEEINKSVMCDTSWGPPGCGCAPGKMYYGRGPIQLSWNGNYCAAGNALGLNLMNDPDILSRDATASWRSGFWFWTTQTGAGSMTAHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRIDNYLRFTSMLGVSPGSNLGC

>WP\_108073745.1 glycoside hydrolase family 19 protein [Vitiosangium sp. GDMCC 1.1324]

MWRQGLCDISKRFLYSAMLFSSVAMVLASQEAAAACRGAWTEGSAYNVGDGVTYNGGSYTALVSHTACVGCGWNPVAAPSLWKTGGDCGSGGGGGGGGGGGGGTGLRAILSEATFNSMFPGRNGFYTYAALVAAADTFPGFATTGDTDTRKREVAAFLANISHETGGLVYTEEINKAPYCDTSWGPPGCSCASGKWYYGRGPMQLSWNGNYCAAGNALGVDLKNNPDLVATDATISWRTGFWFWMTQTGAGSMTAHNAMVNGAGFGQTIQTINGSLECGGRNPAQVQSRVNNYLNFTSKLGVSPGGNTGC

>WP\_095983129.1 glycoside hydrolase family 19 protein [Melittangium boletus]

MASKTASRCLSLLGVLGGLSGCTVDEVKSVEPVDQIQREAIVSSISEGDYVIRSAQNNKCVDIAASGTADGTKVQLWDCNGTNAQKFAISPTSDGYWKIINVNSGKGFDIKEVSYAQNAELHQWSYVGGANQQFKFVNRGNNNFSIHARHTDMVIDLLWGSADNGTGFVQYPYTGTANQLYTLDKVSGGGTTPPPSGNGIAGILSESTFNAMFPGRNGFYSYSALVAAANTFSGFATTGDTDTRKREVAAFLANIAHETGNLVYIEEIAKSTMCDTSWGPPGCGCAAGKMYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVARDATISWRTGFWFWMTQTGAGSMTAHNAIVNGAGFGETIRTINGALECGGRNPAQVQSRVNNYTRFCSLLGVSPGANTGC

>WP\_203405794.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MLRQSLSGLSKSILSAAMVFASMAMALASQEAAAACRGAWAEGSAYNAGDGVTYNGGSYTALVSHTACVGCGWNPVAAPSLWSQGGDCGGGGGGGGGGNGGGGDGGNGGTGLRAILSEATFNSMFPGRSSFYTYSALVAAADTFPGFATTGDLDTRKREVAAFLANIAHETGHLVYVEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGVDLMNNPDLVARDATIAWRTGFWFWMTQTGAGSMTAHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRVNNYLNFTSKLGVSPGGNTGC

>WP\_108072736.1 glycoside hydrolase family 19 protein [Vitiosangium sp. GDMCC 1.1324]

MKAIGNRWVLLAGVGSMLLGAASCAPETAPASEAVGEVTQSLAAPIGQTIWLKACLNSKFISADGNLGATAPLVADRAAAAGWELFQVVDAGSGTIALRVSETGMYVSADTNLGAQLVANRTAIGDWERFTWVDFNNGTIGLIAKSTGKYVSTDANRGANAPLYADRATAGCWEAFSFGTSGSGGGGGGGGTGLGAILSESTFNAMFPGRNGFYTYAALVEAANTFPTFATTGDTDTRKREVAAFLANINHETGGLVYTEEINKAAYCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNYLGVDLKNNPELVATNATISWRTGFWFWMTQTGAGTMTAHNAMANGAGFGETIRTINGSLECGGRNPAQVQSRIDAYKRFCDMLGVSYGSNISC

>WP\_095981465.1 glycoside hydrolase family 19 protein [Melittangium boletus]

MSRLTVFRCVSLLGALSGLGGCAVDEVKSVEPVDQLQREAIVSSITAGDYVIRSAQNNKCIDIASSGTADGTKVQLWDCNGTNAQKFAISATSDGYWKIINVNSGKGFDIKEVSYAQNAELHQWSYVGGANQQFKFVNRGNNNFSIHARHTDMVIDLLWGSANNGTGFVQYPYTGTANQLYTLDKVSGGGTTPPPSGNGIAGILSESTFNAMFPGRNGFYSYSALVAAANTFSGFATTGDTDTRKREVAAFLANIAHETGNLVYIEEIAKSTMCDTGWGPPGCGCAAGKMYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVARDATISWRTGFWFWMTQTGAGSMTAHNAIVNGAGFGETIRTINGALECGGRNPAQVQSRVNNYTRFCSLLGVSPGANTGC

>WP\_095976400.1 glycoside hydrolase family 19 protein [Melittangium boletus]

MKNFFYAATLVSSLAMGLVSQEAAAACRGAWTEGTTYSTGDGVTYNGGNYGALVGHTACVGCGWNPVAAPSLWQAGTGGCGGSGDGGNNPPNPPNPPTGNGIAGILSESTFNAMFPGRNGFYTYSALVAAANSFSGFATTGTTETRKREVAAFLANIAHETGNLVYIEEIAKSTMCDTSWGPPGCGCAAGKMYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVARDATISWRTGFWFWMTQTGAGSMTGHNAIVNGAGFGETIRTINGALECGGRNPAQVQSRVNNYTRFCSLLGVSPGANTGC

>WP\_204221668.1 RICIN domain-containing protein [Archangium violaceum]

MSRMSVYRCLSLLGVVGGLGGCAANELESAEETAQLRSAAIVSSITEGDYVIRSAMTNKCVDISSSSTADGAKVQQWDCNGTNAQKFHISPTSDGYWKIINVNSNKAIDVKDVSTAQNALFHQWTYVGGNNQQFKFVARGNNQFSIHVRHTDMVMDLYWGSANNGTEYVQYPYTGTANQLYTFDKVDGTTPGNGLGAILSESTFNSMFPGRNPFYSYSSLVAAAATFPSFATTGDTDTRKREVAAFLANVAHETGNLVYIEEINKSVMCDTSWGPPGCGCAPGKMYYGRGPIQLSWNGNYCAAGNALGLNLMNDPDILSRDATASWRSGLWFWNTQTGAGSMTAHNAMVNNAGFGETIRTINGALECNGRNPAQVQSRIDNYLRFTNMLGVSAGSNLGC

>MDC0707056.1 chitinase [Stigmatella ashevillena]

MTYNGGKYTARQAHTACVGCGWNPVAAPSLWQAGGDCTGGGDPPPPTGSGIAAILSESTFNTMFPGRNGFYTYSALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWTTQTGAGSMTGHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRINNYTRFLGLLGASAVGNNGC

>WP\_307732460.1 glycoside hydrolase family 19 protein [Stigmatella ashevillena]

MAPQSSVFKEKFNMLRQELQGVSKSLLGAAVLFFSMAVVFAPQDAAAACRGAWAEGSAYNTGDGVTYNGGKYTARQAHTACVGCGWNPVAAPSLWQAGGDCTGGGDPPPPTGSGIAAILSESTFNTMFPGRNGFYTYSALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWTTQTGAGSMTGHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRINNYTRFLGLLGASAVGNNGC

>WP\_187323609.1 glycoside hydrolase family 19 protein [Stigmatella aurantiaca]

MTYNGGTYTALQAHTACVGCGWNPAAVPSLWKAGGDCGSTPPPPPPPPPPPGGNGIAAILSESTFNTMFPSRNGFYTYAALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWMTQTGAGSMTGHDAIVNGAGFGETIRTINGALECNGRNPAQVDSRVNNYNRFLGLLGASAVGNNRC

>WP\_257460623.1 glycoside hydrolase family 19 protein [Archangium sp. CY-1]

MRPQGLCDISKKFMFAALVFSSTVTVLAPQVAEAACRGAWAEGTSYSTGDVVSYSGANYTALVGHTACVGCGWNPVAAPSLWSSGGNCDGGGGNNGGGGNNGGGGANPGVGGVLSEAMFNMMFPNRNPFYSFDAFFAAASTFPGFATTGDVDTRKREVAAFLANISHETGGLVYTEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNDPDLVARDAVIAWRTGLWFWMTQTGAGYMTGHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRVNNYLNFTSMLGVNPGGNTGC

>EAU61742.1 chitinase [Stigmatella aurantiaca DW4/3-1]

MMWRQELRDVSKSLLGAAVLFFSMVVVFAPQDAAAACRGAWAEGSAYNVGDGVTYNGGTYTALQAHTACVGCGWNPAAVPSLWKAGGDCGSTPPPPPPPPPPPGGNGIAAILSESTFNTMFPSRNGFYTYAALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWMTQTGAGSMTGHDAIVNGAGFGETIRTINGALECNGRNPAQVDSRVNNYNRFLGLLGASAVGNNRC

>ADO71774.1 Glycoside hydrolase, family 19 [Stigmatella aurantiaca DW4/3-1]

MALQPGSLREMFNMMWRQELRDVSKSLLGAAVLFFSMVVVFAPQDAAAACRGAWAEGSAYNVGDGVTYNGGTYTALQAHTACVGCGWNPAAVPSLWKAGGDCGSTPPPPPPPPPPPGGNGIAAILSESTFNTMFPSRNGFYTYAALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWMTQTGAGSMTGHDAIVNGAGFGETIRTINGALECNGRNPAQVDSRVNNYNRFLGLLGASAVGNNRC

>WP\_002617167.1 glycoside hydrolase family 19 protein [Stigmatella aurantiaca]

MSRMNLYRWLPLLGVMGGLGGCATPELETAEPLAQLQGEAIVSSITEGDYVIRSAMTNKCIDIASSNTADGAKVQQWDCNGTNAQKFHISPTSDGYWKIINVNSGKGLDIKEVSTAANAEVHQWSYVGGANQQFRFVGRGNNQFSIHVRHTDMAIDLYWGSADNGTIYVQYPYTGTSNQHYTFDKVDGGTQPPPTGTGIAAILSESTFNTMFPSRNGFYTYAALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLKNNPDLVAQNATIAWRTGFWFWMTQTGAGSMTGHDAIVNGAGFGETIRTINGALECNGRNPAQVDSRVNNYNRFLGLLGASAVGNNRC

>WP\_272134251.1 glycoside hydrolase family 19 protein [Stigmatella ashevillena]

MSRMSLYRCLSLLGVMGGLGGCAVDEVETAGSIAQIQGEAIVSSITEGDYVIRSAMTNKCIDIASSNTADGAKVQQWDCNGTNAQKFHISPTSDGYWKIINVNSGKGLDIKEVSTAQNAEVHQWSYVGGANQQFKFVGRGNNQFSIHVRHTDMAIDLYWGSADNGTIYVQYPYTGAANQFYTFDKVDGTTPPPTGNGIAAILSESTFNTMFPGRNGFYTYSALVAAANTFPSFATSGDTATRKREVAAFLANISHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVDLMNNPDLVAQNATIAWRTGFWFWMTQTGAGSMTGHNAIVNGAGFGETIRTINGALECNGRNPAQVQSRINNYTRFLGLLGASAVGNNGC

>UQA63924.1 chitinase [Polyangium aurulentum]

MFNGAAYIAEHDNPGYDPTISTWFWDPYSGCTGSTGSGGSGGSGGSGGSGGSDPGTGLGAILSKSMFESMFPSRAPFYTYEALVAAAATFPAFATTGDLTTRKREVAAFLANVSHETGGLVYIEEIAKAPYCDTSWGPPGCSCAPGKWYYGRGPIQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGTMTPHNAMVTGAGFGETIRTINGALECNGGNPGQVQSRVNKYLEFTSKLGVTPGNNTGC

>UZH23237.1 hypothetical protein [myxobacterium MSr12020]

MTRKHSILPGSLLSLAFVAAATSAGGCLVDDAAEDDFESMELALCSAPAWAAGVAYTAGTVVNYGGKSYQCTQSHTSLAGWEPTAVPALWTETGTCSGSSSSSSSSSASSGSGGSGGAGSCNYPAWQQGKNYYTGNIVIFNGAPYIAEHDNPGYDPTISTWFWDPYPGCTSSGSGGSGGSGGSGGSGGSDPGTGLGAILSKSTFESMFPGRSPFYTYEALISAAATFPAFATTGDLTTRKREVAAFLANVSHETGGLVYVEEIAKAPYCDTSWGPPGCSCAAGKWYYGRGPIQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGTMTPHNAMVNGAGFGETIRSINGALECNGGNPAQVKSRVDKYLEFTGKLGVTPGNNTGC

>WP\_044183154.1 RICIN domain-containing protein [Hyalangium minutum]

MSRMSMLRCISLLGVIGLGGCGANEMETLEPLSQLESAAIVSSLSEGDYVIRSAMTGKCVDVASSSTADGAKVQQWDCNGTNAQKFHISPTSDGFWKIINVNSGKGLDIKEVSTAQNAEVHQWSYLGGANQQFQFIARGNNQFSFHPRHTGMAIDLYWGSSNNGTIYVQYPYSGGPNQLFTLDKVSGGTTPPPTGTGLAAILSEATFNSMFPGRNGFYSYSALVAAASTFPAFATTGDTDTRKREVAAFLANVAHETGGLVYTEEINKSDMCDPSWGPPGCYCAAGKRYYGRGPIQLSWNGNYCAAGNALGLNLRDDPDLVARDANVAWRTGLWFWMTQTGAGSMTGHDAMVNNRGFGETIRTINGALECGGKNPGQVQSRVNNYLNFTGKLGVSAGANTGC

>WP\_224249054.1 RICIN domain-containing protein [Cystobacter gracilis]

MSRMSMPRCVSLLAVIGLGGCAGDEWEAQEPLSQLESAAIVSSLSEGDYVIRSARTGKCVDVASSSTADGAKVQQWDCNGTNAQRFHISPTSDGFWKIINVNSGKALDIKGVSTAQNAELHQWSYVGGGNQQFQFIARGNNQFSFHPRHTGMAIDLYWGSADNGTIYVQYPYGGGDHQRFTLDKVGGTTPPPATGLASILSEATFNAMFPGRNGFYSYSALLAAASTFPAFATTGDTDTRKREVAAFLANVGHETGGLVHIEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGVNLKDDPDLVARDAAIAWRTGLWFWMTQTGAGSMTAHDAMVNNRGFGETIRTINGAMECGGRNPGQVQSRVNNYLNFTGRLGVSAGGNTGC

>WP\_082362387.1 glycoside hydrolase family 19 protein [Chondromyces crocatus]

MSRKLTIPGSLLSLLFAAAAVNAGGCVVDPSVDEDFEDFESQESAVCAGAPNWSENVAYGVGTVVQFGGKSYRCAQAHTSLAGWTPAAVPALWQETGTCSGSSSTTTSSSSSGGGTGSGGAGGGGGGSCNYPAWQQGRMYYPGDIVRFNGSLYIAEHENPGYDPTISTWFWDPYTCSGGTGGGGGGSGGSGGSGGGGNGGSGLAGVLSQNDFNAMFPNRNPFYTYNALVAAAATFPAFANTGSLETRKREVAAFLANVSHETGALVYIEEIQKGDYCDTSWGPPGCSCAPGKRYFGRGPIQLSWNGNYCAAGNALNLPLQSDPDLLSRDANAAWRTGLWFWTTQNGAGTMTAHSAMVNSRGFGETIRTINGALECNGRNPGQVQSRINTYQNFTNRLGVSPGNNLGC

>WP\_255636364.1 RICIN domain-containing protein [Hyalangium versicolor]

MSMLRCVSLLGVVGLGGCAADEWEAQEQLSQVESAAVVSSISEGDYVIRSVMTGKCVDVASSSTADGAKVQQWDCNGTNAQKFHISPTSDGFWKIINVNSGKGLDIKEVSTAQNAQVHQWSYVGGGNQQFQFIARGNNQFSFHPRHTGMAIDLYWGSADNGTIYVQYPYTGGANQLFTFDKVSGGTTPPPATGLAGILSESTFNSMFPGRNGFYSYSALVAAANTFSAFATSGDTDTRKREVAAFLANVAHETGGLVYIEEINKSVMCDTSWGPPGCGCASGKWYYGRGPIQLSWNGNYCAAGNALGVNLKDDPDLVARDATIAWRTGLWFWMTQTGAGSMTAHDAMVNNRGFGETIRTINGALECGGRNPGQVQSRVNSYLDFTGRLGVSAGSNTGC

>WP\_136924846.1 glycoside hydrolase family 19 protein [Polyangium aurulentum]

MSRNHSILRGSLLSLAFVAAAANAGGCIVEGSPEDDLDSAELALCSAPSWAEGVAYTVGTVVNYGGKSYQCQQNHTSLAGWTPAAVPALWLETGTCSGSTSSSSSSSSSASSGSGGAGGAGGSGSCNYPAWQQGKNYYTGNIVIFNGAAYIAEHDNPGYDPTISTWFWDPYSGCTGSTGSGGSGGSGGSGGSGGSDPGTGLGAILSKSMFESMFPSRAPFYTYEALVAAAATFPAFATTGDLTTRKREVAAFLANVSHETGGLVYIEEIAKAPYCDTSWGPPGCSCAPGKWYYGRGPIQLSWNGNYCAAGNALGLPLQANPDLLAQDANAAWRTGFWFWTTQTGAGTMTPHNAMVTGAGFGETIRTINGALECNGGNPGQVQSRVNKYLEFTSKLGVTPGNNTGC

>WP\_095985405.1 glycoside hydrolase family 19 protein [Cystobacter fuscus]

MWRQGLRGFAKTFLSTAVVVSSLGMGLAAQDAAAACRGGWAEGTAYNVGDGVTYNGGKYSALVSHTACVGCGWNPVAAPSLWKTGGDCGTTTPPPTDPPPTGTGIAAILSESTFNSMFPGRNGFYTYSALVAAANTFPGFATTGDTDTRKREVAAFLANIAHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKMYYGRGPIQLSWNGNYCAAGNALGVDLKNDPDRVARDATIAWRTGLWFWMTQAGAGPRPAHDAIVNGFGFGGTIRSINGALECDGRNPAQVQSRVNSYLNFTSKLGVSPGGNTGC

>WP\_095990964.1 glycoside hydrolase family 19 protein [Cystobacter fuscus]

MFYKPTYRGMALLGVLGGLSGCTVDEVASTEKLSQLESAAIVSSISEGDYVIRSVMTNKCIDVASSSTEDGAKVQQWDCNGTNAQKFHISPTSDGYFKIINVNSNKGLDIKEVSTAQNAQLHQWSYVGGGNQQFKFVGRGNSQFSMHVRHTDMAIDLYWGSADNGTQYVQYPYTGTANQLYTFDKVDGGTTPPPTGTGIAAILSEATFNSMFPGRNGFYTYSALVAAANTFPGFATTGDTDTRKREVAAFLANIAHETGGLVYIEEINKSVMCDTSWGPPGCGCAAGKMYYGRGPIQLSWNGNYCAAGNALGVDLKNDPDRVARDATIAWRTGLWFWMTQAGAGYRPAHDSMVNNLGFGETIRTINGALECNGKNPAQVQSRVNNYLNFTGKLGVNPGGNTGC

>WP\_108074176.1 RICIN domain-containing protein [Vitiosangium sp. GDMCC 1.1324]

MSRMSMLRCVSLLGVIGLGGCAADEWEAQEPLSQLESAAIVSSLSEGDYVIRSVMTGKCVDVASSSTADGAKVQQWDCNGTNAQKFHISPTSDGFWKIINVNSGKGLDIKEVSTAQNAEFHQWSYVGGANQQFQFIARGNNQFSIHPRHTGMAMDLYWGSANNGTIYVQYPYEGRANQLFTLDKVGGTTPPPTGTGLAAILSEATFNSMFPGRNGFYSYSALVAAANTFPAFATTGNTDTRKREVAAFLANVSHETSGLVYIEEINKNVMCDTSWGPPGCGCAAGKWYYGRGPIQLSWNGNYCAAGNALGVNLKDDPDLVARNATIAWRTGLWFWMTQTGAGTMTAHNAMVNNQGFGETIRTINGALECGGRNPGQVQSRVNNYLNFTGRLGVSAGTNTGC

>WP\_204226210.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MRPQGLCDISKKFMFAALLFSSIATVLVPQIAAAACRGAWAEGTAYSTGDVVSYSGANYTALISHTACVGCGWNPVAAPSLWSTGGNCDGGGGNGGGGNGGGGTNPGVGGVLSEAMFNSMFPNRNPFYSFSAFFTAASTFPGFATTGDVDTRKREVAAFLANISHETGGLFYIEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGLDLKNDPDLISRDAVVAWRTGLWFWMTQTGAGYMTGHDAMVNNVGFGETIRTINGALECNGRNPAQVQSRVNNYLDFTSRLGVNPGGNTGC

>OJH37211.1 chitinase [Cystobacter ferrugineus]

MASQHSTTEEMLDMRQGFCDISKKFLFAALLFSSMAMVLVPRAAEAACRGAWAEGTAYSAGDVVTYGGASYTALVAHTPCAGCGWNPVAAPSLWSTGGQCDGGGNGGGDGGGPASPGVGGVLSPAMFHNMFPGRNPFYSFESLFAAASTFPTFGTTGDVDTRKREVAAFLANVAHETGHLVYIEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGLDLKNDPDLLSRDAVAAWRSALWFWMTQTGAGSRTGHDAIVSGAGFGETIRTINGALECNGRNPAQVQSRVNNYLRFTSMLGVSPGGNTGC

>WP\_011554529.1 MULTISPECIES: RICIN domain-containing protein [Myxococcus]

MSGKFVSRSLALLGICGGLSALGGCGDAEPVPAALEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEASTAANALVHQWGYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGAALGLPLHTNPDLLAQDANASWRSAFWFWTTQAGAGTMSAHRAMVDGHGFGETIRTINGSLECNGRNPGQVQSRINNYQHFTNMLGVSPGGNLGC

>WP\_245814616.1 glycoside hydrolase family 19 protein [Cystobacter ferrugineus]

MRQGFCDISKKFLFAALLFSSMAMVLVPRAAEAACRGAWAEGTAYSAGDVVTYGGASYTALVAHTPCAGCGWNPVAAPSLWSTGGQCDGGGNGGGDGGGPASPGVGGVLSPAMFHNMFPGRNPFYSFESLFAAASTFPTFGTTGDVDTRKREVAAFLANVAHETGHLVYIEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPIQLSWNGNYCAAGNALGLDLKNDPDLLSRDAVAAWRSALWFWMTQTGAGSRTGHDAIVSGAGFGETIRTINGALECNGRNPAQVQSRVNNYLRFTSMLGVSPGGNTGC

>WP\_204490605.1 glycoside hydrolase family 19 protein [Archangium primigenium]

MMGLKKLFSAAMMFSAMAMGFVAQDAAAACRGNWAEGTAYSVGDGVSYNGGKYTALQAHTACVGCGWNPAATPSLWKTGGDCSGGTTPPPTEPPPSTGGKGIAAFLSESQFNQMFPGRNGFYSYSALVAAANTFSGFATQGSTDNQKREVAAFLANVAHETGNLVYIEEIAKSTMCDTSWGPPGCGCAAGKQYYGRGPIQLSWNGNYCAAGNALGVDLKNDPDRVARDATIAWRTGFWFWMTQTGAGSMTAHNAMANGVGFGETIRTINGALECGGRNPAQVQSRINNYTRFCQILGVSVGSNTGC

>WP\_176416701.1 MULTISPECIES: RICIN domain-containing protein [unclassified Myxococcus]

MSGKFVSRSLALLGICGGLSALGGCGGAEPAPAALEPVGQVEAAAIVDTITEGTYVIRSVMTSKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAANALVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGSTANGTELVQYPYEQRTNQRWTFDRVDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANSFPAFANTGSLETRKREVAAFFANTAHETGHYVYVEEINRGDYCGSWGPPGCNCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDPNAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGSLECNGGNPGQVQSRIDNYQRFTSMLGVSPGANLGC

>WP\_074958445.1 RICIN domain-containing protein [Myxococcus fulvus]

MSGKFVSRSLALLGICGGLSALGGCDRAEPASADLEPVGQVESAAIVDTITAGTYVIRSVMTNKCIDVDSSSTADGAKVQQWDCNGTNAQRFVVTPTSGGYFSIINVNSNKALDIKEASVAANALVHQWSYVGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEINRGPYCGTWGPPGCNCVAGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGSMTAHSAMVNGAGFGETIRTINGTLECNGGNPGQVQSRIQKYQDIANLLGVSPGGNLGC

>WP\_268781793.1 glycoside hydrolase family 19 protein [Myxococcus sp. NMCA1]

MSGKFVSRSLALLGICGGLSALGGCGDAEPAPAALEAVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSMINVNSNKALDIKEASTAANALVHQWGYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGAWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGSLECNGGNPGQVQSRINNYQRFTGMLGVSPGDNLGC

>WP\_253994529.1 RICIN domain-containing protein [Myxococcus qinghaiensis]

MSGKFVSRSLALLGICGGLSALGGCESAEPAPAALEPVGQVESAAIVDTITEGTYVIRSVMTNKCIDIDSSSTADGAKVQQWDCNGTNAQRFLVTPTSGGYFSIVNVNSNKGLDIKDGSTAANALVQQWGYGGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEIARGPYCGSWGPPGCNCAPGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGNMTAHSAMVNGHGFGETIRTINGTLECNGGNPGQVQSRIQKYQDIASMLGVSPGSNLGC

>WP\_284667602.1 RICIN domain-containing protein [Myxococcus sp. SDU36]

MSGKFVSRSLALLGICGGLSALGGCGGAEPAPAALEPVGQVEAAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAANALVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGSTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANSFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCNCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDPNAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGALECNGGNPGQVQSRIDNYQRFTSMLGVSPGANLGC

>WP\_140799005.1 RICIN domain-containing protein [Myxococcus xanthus]

MSGKFVSRSLALLGICGGLSALGGCGDAEPAPTALEPVGQVEGAAIVDTITEGSYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEASTAANALVHQWGYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGAWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGSLECNGGNPGQVQSRINNYQRFTGMLGVSPGDNLGC

>WP\_140855717.1 RICIN domain-containing protein [Myxococcus xanthus]

MSGKFVSRSLALLGICGGLSALGGCGDAEPAPAALEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSITNVNSNKALDIKEASTAANALVHQWGYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGAWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGSLECNGGNPGQVQSRINNYQRFTGMLGVSPGDNLGC

>WP\_140876036.1 RICIN domain-containing protein [Myxococcus xanthus]

MSGKFVSRSLALLGICGGLSALGGCGDAEPAPAALEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEASTAANALVHQWGYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGAWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGSIECNGGNPGQVQSRINNYQRFTGMLGVSPGDNLGC

>WP\_239013920.1 glycoside hydrolase family 19 protein [Archangium violaceum]

MRQGFCDISKKFLLAAMLFSSMTMVLVPQAAEAACRGAWAEGTAYSAGDVVTYGGATYTALVTHTPCAGCGWDPVAAPSLWSTGGNCDGGGNGNGGGGGGGASPGVGGVLSPGMFYNMFPDRNLFYSFESFFAAASTFPTFATTGDIDTRKREVAAFLANVAHETGHLVYVEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPLQLSWNGNYCAAGNALGLDLMNDPDLLSRDAVAAWRSALWFWMTQTGAGSRTGHDAIVSGAGFGETIRTINGALECNGRNPAQVQSRVNNYLKFTSMLGVSPGANTGC

>QRK04340.1 chitinase [Archangium violaceum]

MTEENLDMRQGFCDISKKFLLAAMLFSSMTMVLVPQAAEAACRGAWAEGTAYSAGDVVTYGGATYTALVTHTPCAGCGWDPVAAPSLWSTGGNCDGGGNGNGGGGGGGASPGVGGVLSPGMFYNMFPDRNLFYSFESFFAAASTFPTFATTGDIDTRKREVAAFLANVAHETGHLVYVEEINKSVMCDTSWGPPGCGCAPGKWYYGRGPLQLSWNGNYCAAGNALGLDLMNDPDLLSRDAVAAWRSALWFWMTQTGAGSRTGHDAIVSGAGFGETIRTINGALECNGRNPAQVQSRVNNYLKFTSMLGVSPGANTGC

>WP\_248544242.1 RICIN domain-containing protein [Myxococcus fulvus]

MSGHLVSRSLALLGICGGLSVLGGCERAEPASADLDPVGQVESAAIVDTITAGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFVVTPTSGGYFSIINVNSNKALDIKEASVAANALVHQWSYGGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRVDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEIARGPYCGTWGPPGCNCVAGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGSMTAHSAMVNGAGFGETIRTINGALECNGGNPGQVQSRIQKYQDIANLLGVSPGGNLGC

>WP\_267697367.1 RICIN domain-containing protein [Myxococcus sp. MISCRS1]

MSGHLVSRSLALLGICGGLSVLGGCERAEPASADLDPVGQVESAAIVDTITAGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFVVTPTSGGYFSIINVNSNKALDIKEASVAANALVHQWSYGGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRVDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEIARGPYCGTWGPPGCNCVAGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGSMTAHSAMVNGAGFGETIRTINGTLECNGGNPGQVQSRIQKYQDIANLLGVSPGGNLGC

>WP\_090494079.1 RICIN domain-containing protein [Myxococcus virescens]

MSGKFVSRSLALLGICGGLSALGGCGGAEPVPATLEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAPNARVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGAALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGHGFGETIRTINGSLECNGGNPGQVQSRINNYQHFTNMLGVSPGGNLGC

>AKF80321.1 chitinase [Myxococcus fulvus 124B02]

MSGNFVSRSLALLGICGGLSALGGCERAEPASADLEPVGQVESAAIVDTITAGTYVIRSVMTNKCIDVDSSSTADGAKVQQWDCNGTNAQRFVVTPTSGGYFSIINVNSNKALDIKEASVAANALVHQWSYGGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRVDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEIARGPYCGTWGPPGCNCVAGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGSMTAHSAMVNGAGFGETIRTINGTLECNGGNPGQVQSRIQKYQDIANLLGVSPGGNLGC

>WP\_141619247.1 glycoside hydrolase family 19 protein [Myxococcus sp. AB036A]

MSGKFVSRSLALLGICGGLSALGGCGDAEPMPAALEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAPNALVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTLDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGAALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGYGFGETIRTINGSLECNGGNPGQVQSRINNYQHFTNMLGVSPGGNLGC

>WP\_141592146.1 glycoside hydrolase family 19 protein [Myxococcus sp. AB056]

MSGKFVSRSLALLGICGGLSALGGCGDAEPVPAALEPVGQVEGAAIVDTITEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAPNALVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTLDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCYCVAGKKYYGRGPIQLSWNGNYCAAGAALGLPLHTNPDLLAQDANAAWRSAFWFWTTQAGAGTMSAHRAMVDGYGFGETIRTINGSLECNGGNPGQVQSRINNYQHFTNMLGVSPGGNLGC

>WP\_223785466.1 RICIN domain-containing protein [Myxococcus sp. AS-1-15]

MSGHLASRSLALLGICGGLSVLGGCERAEPASADLDPVGQVESAAIVDTITAGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFVVTPTSGGYFSIINVNSNKALDIKEASVAANALVHQWSYGGGTNQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRVDGGGGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAASTFPAFANTGSLETRKREVAAFFANTAHETGNYVYIEEIARGPYCGTWGPPGCNCVAGKQYYGRGPIQLSWNGNYCAAGAALNLPLHTNPDLLAQDANASWRSAFWFWTTQTGAGSMTAHSAMVNGAGFGETIRTINGTLECNGGNPGQVQSRIQKYQDIANLLGVSPGGNLGC

>WP\_163778223.1 RICIN domain-containing protein [Myxococcus vastator]

MSGKFVSRSLALLGICGGLSALGGCGGAEPAPAALEPVGQVEGAAIVDTVTEGTYVIRSVMTNKCIDVASSSTADGAKVQQWDCNGTNAQRFRVTPTSGGYFSIINVNSNKALDIKEVSTAANALVHQWSYGGGANQQFRFVKEVGSEFSIRARHTDMAIDVYWGNTANGTELVQYPYEQRTNQRWTFDRIDGGGGNPGTGLAAILSESTFNAMFPNRNPFYTYSSLIAAANTFPAFANTGSLETRKREVAAFFANTAHETGNYVYVEEINRGDYCGSWGPPGCNCVAGKRYYGRGPIQLSWNGNYCAAGTALGLPLHTNPDLLAQDPNAAWRSAFWFWTTQAGAGTMSAHRAMVDGRGFGETIRTINGALECNGGNPGQVQSRIDNYLRFTGMLGVSPGANLGC

>WP\_204491464.1 glycoside hydrolase family 19 protein [Archangium primigenium]

MTSKIVSRGLSLVGVLAGLSGCAVEETKAPEQVAKLESAAIVSSVSAGTYVIRSAQNNKCLDIANSGTADGTKLQLWDCNGTNAQKFAVSATSDGYFKILNVNSNKAIDVKDVSTAQNAEIHQWSYVGGNNQQWKIVGRGNNQFSLHARHTDMVMDLLWGSANNGTGFVQYLYTGTANQLFTFDSTSGGTTPPPSGGKGISAYLSESQFNQMFPGRNGFYSYSALVAAANTFPDFATQGSVDNQKREVAAFLANVAHETGNLVYIEEIAKSTMCDTSWGPPGCGCAAGKQYYGRGPIQLSWNGNYCAAGNALGVDLKNDPDRVARDATIAWRTGFWFWMTQTGAGSMTAHNAMANGVGFGETIRTINGALECGGRNPGQVQSRIDNYNRFTQIIGVSAGGNTGC