

- 1. O86937_PEPM_Streptomyces
- 2. P56839_PEPM_Mytilus_edulis
- 3. P33182_PEPM_Tetrahymena_pyriformis
- 4. WP_070393116_PEPM_Moorea_producens
- 5. outpace_tricho_scaffold_3391_1
- 6. WP_042155018_PEPM_Planktothrix_agardhii

MNATEPGSDGTCPESEVCSRLNLIHGPGTCCLVGVHDGLSARIVAAEGFIALWASGLCMSIARIGVRDSDPASWTELLTIVGTML
MSITKVKKTTTOLKQMLNSKDLEFIMEAHNGLSARIVQEA/GFKGIWGSGLSVSAQLGVRDSNEASWTQVVEVLEFMS
MLANSLKSFESTRKTTOLKNTIQSKDLSFIMEAHNGLSARIVVEE/GFKGIWGSGLSVSAQLGVRDSDNEASWTQVLEVLEFMS
MKTTAQLTKTTEPRKATQLRKTIQPRKTTOLKNTINSKQLEFIMEAHNGLSARIVVEE/GFKGIWGSGLSVSAQLGVRDSDNEASWTQVLEVLEFMS
MLRKTTTQLKNTLQSEKLEFIMEAHNGLSARIVVEE/GFKGIWGSGLSVSAQLGVRDSDNEASWTQVLEVLEFMS
MIRKTTTKLRCLDSSQCLEFIMEAHNGLSARIVVEE/GFKGIWASGLSVSAALGVRDSDNEASWTQVLEVLEFMS

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EAPGAPVPLVGGDTGYGNENTAMPSPAPSCLGAGVCFFEDKVEPKNSFFGDGHG--LAPIGEFGKIKACKDTDRPCGVAVARTEAULSNLP
DASGV--PILLQADDTGYGNFNARRLVKLEPRGVASACLEDKLEPKNSLHDGRAQPLADIEEFALKIKACKDSSTTPDECTIVARVEAFIAGWGL
RRTKI--PILLGGDTGYGNYNARRLVKKLEQRSTAGVCLLEDKLEPKNSLDDGRGELAPINEFVAKIKACKDTTQADECVVARVEAFIAGWGL
DATSI--PILLGGDTGYGNFNARRLVKKLEQRGVAGVCILEDKLEPKNSFIKGTACPLADMDEFCKIKAKADASDDDEVLITARVEAFIAGWGL
DATSI--PILLGGDTGYGNFNARRLVKKLEQRGVAGVCILEDKLEPKNSFIDGHTQPLADIEEFCKIKAKADAKDNDVVISRVEAFIAGWGL
DATSI--PILLGGDTGYGNFNARRLVKKLEQRGVAGVCILEDKLEPKNSFINGTAPLADIDEFCKIKAKADAKLDEDFVIARVEAFIAGWGL

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FEATIRAFAYVEVADGIFTHSRMSTQCIAEEMCCDGSAPLIIAPITVYRPSLDC--AALGIAAGCIWANHSMRAAFIAMEDVCCQITRADRCIFG
DEALKRAEAYRNAGADAILMHSKKACDSDEIATNMAINNOGPPVIVPTKYKTPTDTERDVGVSMTIWANHNLRASVVAIQTTKQIYCDQSLVN
FEALKRAEAYRNAGADAILMHSKKLESEIEATNKEWKNRSPVIVPTNYTPTDTERKWGVNMTIWANHMRACVAMQETSRRITYDESLVN
SEALKRACAYYDAGADGILHSAALRVDEILATKEFGDRAPVIVPTKYATPTPEVRDAGFSIATWANQLLRASVIMTQKVAQQIMMEQNLLN
SEALKRAEAYYHAGADGILHSSLRVDEILATKEDWGDRCAPVIVPTKYTTPTQVREDYKFSIATWANQTLRAAITEMQKIVNKLSCQENLLD
SEALKRAEAYHAGANGILHSSLRVDEILATKSEWGNRCPPVIVPTKYTTPTQVREDYQFSIATWANQVCRAAITAMQOATKRITFTENILLN

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VEERVAPIKETLCIDYESLECDENRYTQAP-----DLAPVGS
VEDKIVSVKETERLQRDDLVQAECKYLPKN
VEPKVAKKKEVFRLOGEDELKQADKKYI
VEDKIVPVAFETERLQGVAEHAFAEQRYLPQNGGGIRTVLLAASRGIELGQFTKDKPKCMVNLQCQPLLSTRIVHEVHSVGIQDITVVRGYKKGVAN
AEESTIPVSEVFRLOGCLELQEAELLYLPQNKKIASLLAASRGIELGTFTKEKPKCMLTLKRKPILLQTIATIHHELGTKNSVVRGYKKEATN
IIECTIPVSEVFRLOGALFLQAAEKRYLPQNQKQSSALLAASRGIELGEFTLDKPKCMLLEKCKPLLQVADTYRMVGIKETIVVRGYKKEVIN

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IFGLDFVDNDDYDTTIGELVSLSRGLQELPQD--GDDWLTIGYGDVLFKKYILQMLSGVDHDFVVIIDSSQHRQTEQIRPDYVACSLPDSITQAFYQH
IANIKYVDNDEYESTGEIFSYLGLKKTIQDNEQDNLVIGYGDVILKKYILQILLNNYDLAVLDSSNHHKCSNQVRADYTNCSVPNSKRAFQD
IPNNYLDNDDYDSTGELISLQLGLQFSQGG--NQDILTIGYGDVLFKKYVLQILLDNHDFVNVVDANSQGCQSNVSRPDYVSCSLPNSKQAFYTE

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VDLQQTSHETPECEICGRWTGLTKVSSQGGOKLRDTLNTLLQSQQVROQGRMPTILNRLITDGRVHVLYIKGHWLDIDOVEDIFKAGSE
GCLIQIDANPPEKICGMWTGLTKVSSNVGRPLILALEKILLQLEISSSGRMPLNINELALGYPMNVVYITGDWLDVDEVEDNIKAGT*
NYLQQTNNQESSEICGMWTGLTKVSSQGGOKLRDTLKSLLLEETAKQOGRMPLNINELKLGYPICVITYITGNWLDIDEDNIKAGSE

Residues involved in cofactor and substrate interactions

Residues involved in tertiary enzyme structure