

TM 1

HumanMAANYSTSTRREHVVKVKTSSQPGLFRLSE TSGGMFVGLMAFLLSFYLITNEGRALKTATSAEGLSLVVS
 GallusMSRNFSDTGSKKEHVKITSEAKPGFLERLSE TSGGMLIGLGFLLSFYLLFTNEGRALRTAKSDDEGLSLVIP
 TetraodonMSSAQSSGKNPNKHTRVSAKANPGFLERLSE TAGGTLVGLGLFLLSFYVLLFTNEGRALQTSSSDDEGLSRVVS
 DrosophilaMASLSE TLRSHWPIALFVILFVAGGTELYWNEGRAVHMMATDEAHADYS
 Mesorhizobium MEFVAALRPSSAAVPCGLLASFVSGETMSDSFREVTSVSWFGRIKRAVGGVIFGLLLVLMVIGLWNEGRAVQTARSAEGAGAVVA

Human PDSIHSVAPE.NEGRLVHITIGALRTSKLISDPNYGVHLPAVKRRHVEMYQWVE TESREYTEDG..QVKKETRYSYNTEWRS E I I N S K
 Gallus LDNIHVSQO.NEGRLVHLAGALSTAKPLFDPSYGLSIQAVKPKRQVEMYQWVE YDSREYEENG..EIKKTKSYNTEWKP EVVNSR
 Tetraodon LGSSSLDPO.NNNHLVHIFAPLKTQAQPLHDPNYKVVVQAVKPKRQVEMYQWVE HQESKDYQEEG..ETKTETTYNTEWKS ELINSR
 Drosophila VRFTEEQEVGLEGRIVHLSGPILVGEP LTPEDNYIQLLAVKRRRQVEMYQWVE AVEHNYGDSVGTTHSDSPRTTYTREWDRDKIVDSR
 Mesorhizobium IN.ADSVDAG.NDGRLVHVS GPVTDAGLSDEDFGIAAQLRISRSVEMYQWVE SKSETTKKLG.GEETETTYYSKVVWDDSDIDS

Human NDREIIGHKNP SAMAVE SFMATAPFVQIGRF LSSGLLDKVDNFKSLSLSKLEDPHVD.....IIRRGDFVHSENPKYPEVGDLR
 Gallus NDREIIGHKNP SAMAVE SFTAVSPNVQVGSFVLSKGLVDKIDDFKQLSLAHLEDPHAD.....VTRGGDYFHSENPRRPEVGDLR
 Tetraodon HDDEKEIGHONP SAMAVE VTVVAPEVRVGFVLSKGLVEQIDHFQTLSLRDFPVLDEFP.....LSIDDYFVHTEHPRRPEVGDVR
 Drosophila NYNRRGHITNPSHPFIESHVQVADAVF IGRVLEGAEVKPKFNQYQELTSDIRPE...DSG.....VKLHLGIYVHTNDVFNPEVGDLR
 Mesorhizobium DEKKPDGHONP.PMALHSRVFQIPQGLVAVDLDLPVLDRIDGDKAYSLSANQSATIKAAYTGTKP LSIIVDRGLVGN DNTT PALGDR

TM (?) 2

Human VSFYSYGLSGDDPDLPGAHVVTVIARQRCQDLVFPFS TKSQDTLLLLHHGDFSAEEVFHRELRSNSMKTWGLRAACWMAFMGLNLMTRI
 Gallus VSFYFAGLSGHDPHLGSADKVTVIARQKCDLVPVYHTKSGDVLQILYFGDLSVEEVFQKEHESNTMKTWALRAACWLMFVGISLMTRI
 Tetraodon VRFYSFAGLSGESSRFPPQPVSVVAMQRGEHLEPKTRSGGTLLEILYLGETAAEEVFAKEHQNSLKTWALRAACWALMFLSIQLSMRI
 Drosophila LLFSFAGMEG.....EVFSVVGKLSGNKLVPIYITRSRVPVLLVYFGGLSVQEVFRLAARAAQVLLHWWVFWGLLLIFFGVTCNTMI
 Mesorhizobium IGYELA.....PLGVSVIVARQASRFEPYQIQAGDA LLMVDITGNVPADKMSAEAVSANTLI TWLLRAGGLLLITIGFALFLSP

TM 3

TM 4

Human LYTLVDWFPVVRDLVNIIG..LKAFAFCVATSLTLLTVAAAGWLFYRPLWALLTAGLALVP...ILVARTRVPAKKLE.....
 Gallus VYTLVDWFPVVRDLVNIIG..LKAFAFCVASLSLSTIAGWFFYRPLWALLIGL SVVP...IVVAKSRP PPKKH.....
 Tetraodon IYTLVDWFPVLRLEVLNIG..LKVLLCLCSLSSLLTIAAGWLFYRPLVAAALAAALALVP...VFLTRSGLP PAKKE.....
 Drosophila LRLLFVRVPLLVALAPDPQFPVIGNLLIAPSLALTIAAVAVILHRPVI GACULLAGASPY...VWFTRNLVDYHRLD.....
 Mesorhizobium IGVILDVIPLFGSMARMG..TGLIAFFLALVGGTTTIAAWFWYRPLVLAAGLLAGVI AAAAVYV LGRSRKAAAPMATPSTGTAT