

ULP-1 MSRRSDL-----SDKDSQSRKRHWLTDQ-AVTNEEKEQSPTKR---TRKTK--
ULP-2 MSDSTQMEANAAINEIKKRTRKLDQSLQMRFCADQFFIGNHCTKLASGKSIIISQNSKNR
ULP-4 MEVSTSY-----
ULP-5 MPH-----
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ULP-1 -----SQGLGGLFNTFFGM-----FVSSNSGEKEKTEV-----SGEVQVQE
ULP-2 ICLRFFMAADPLVGYTGDRDFGIAFNQIDHISLKDEQQENPAVLICTLNLSSYTKMCKLQT
ULP-4 -----CT-----
ULP-5 -----

ULP-1 DDEIIVEG---TTRRVAENKKYMI FLNEDAP---VRANAGSEENE-----VIIE
ULP-2 GLKDVVEKPFLYNKSLARNLTFILKPWNDDPDTFVKISYNDEHREYVHSYDYDVAKSLMF
ULP-4 -----P--AVNFKYGSFQDS-----
ULP-5 -----P-----
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ULP-1 KHVQK--NVEIRNDEEKQEVQGDVLVLTLS SSPKSPKNLEKSFEVQQDDEEPDVLFEKVVK
ULP-2 KEVQAVWEQSLKEQLQRRHQ TGRVYLTSQLSEMPREWVQ-FLADQK-----LSK--IV
ULP-4 -----DVSMRED-----D-----LFR--MG
ULP-5 -----KLTPK-----

ULP-1 TPNKQLQEARRFQNELIFLNDNPDPDDVSVIS---DSRSKEFIS-----PTPDDS
ULP-2 CHNGSIQYAR-----VEDNPHGRKHTAVATNGFDHRGTRVLNSFGKAHASLATQEKS
ULP-4 SYNSQGYADG-----THLDGSIGEEDETSSGS-----
ULP-5 -----

ULP-1 VSRPITPSLSSLSNYTSNNVRDYWRNSAKKPEVLRRV---PVRHQF-----KHS
ULP-2 YAKKRKLTEQSLKLIYRND-RSVWLEGSCAKNLKMPKINSEPNMGFEFMGWPDMDNAMTHP
ULP-4 -----ND-----QH-
ULP-5 -----

ULP-1 TSVRKMNTIIDLKKIKNHLSSRDRL LQGVVASGQYEAKAISGIVEKKPKKMQR-----
ULP-2 TSNFENEDVMKSTKQPNDFVSFEQ-----LQAPPPVLQRQNGAIYS
ULP-4 -MDFEEDDFDMESSMTEDLVDEDE-----EEEDEED-----
ULP-5 -----CEAPPEK-----
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ULP-1 -----TSSTDILARAKNKIAELGGSRSNTPSLLSREPSIIIDSEESTSSSYRQHARS
ULP-2 TQSVAFTHISGNDGVEDLTEKISHLGEEAYNID-----MANALHAFSDNWHYEIHP
ULP-4 -----NDEWTNQKRT
ULP-5 -----

ULP-1 NSSESDSYRKLN--DILSQINSLGIGSAYRGPQRYQNSYQLSKQKEDKLL EEARIREGHR
ULP-2 NTVHNASFEQLHIGDGNSSIGTIGFNPLEPYP--QSSFPQSNNWQ-----
ULP-4 DNQNSVAYYA-----
ULP-5 -----

ULP-1 SQTRGD-RLEDVRKRLELQGI AIR-----PKVEKKKV D-FMALPDAADALVER
ULP-2 -QAHGDFTFPQVSFPNTQQGSCLPSTPTAALPPTRPVVEKIPPD TQLFTFP PPSGCT---
ULP-4 -----AMEMLRIRFPFQ **SI AIR**-----
ULP-5 -----RLAHLEIRFKDRRHIIP-----PLFHN-----
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ULP-1 AWSGGNPNEQFVDAFSIQICKKDLATLSGLHWLNDEIINFYL-QLICDRSNGDSKYPKIY
ULP-2 --TGMDP-----VVL LVKDIKTLD RKEFLNDSVMAFML-NYIAFMLSSE-LMKSVH
ULP-4 ----- **ISDFCCLQEKDLLNDTMD FYL-NHIVEHVLPDSNGSNVT**
ULP-5 GWVGRN-----EDRTLNDTII EFYMC DWMRLEV FDEATRASH
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ULP-1 AFNTFFYSNIV-----SKGYASVKRW-----TRKVDIFAF--
ULP-2 MCNTFLFVNLTRLLPPLCF SKRRPIEPEHIKIVKDNCPRVLRW-----TRKFDVLAK--
ULP-4 **VLPSIFWHNLS-----LRQHAFDSEDEKMM SDEQKMDLKFGDLHDFVADFDLQDF--**
ULP-5 VFHSFFLPKIK----TC-FKDFKENPPRRELANHYNRFFR-----SKNDAETFLK
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ULP-1 -DIVLVPVHLG--MHWCM AVI-----
ULP-2 -DYIIIPINED--LHWLVIAVINPSGA-----IVDMSNEEASR-----
ULP-4 **-DYIVVPVNEW--EHWSLAVI CHP**-----
ULP-5 KDILLIPVHLDKPKHWFLVIVHNPSGAVRRISDVNILDATNKVKSRRLSRRITGHVNCDE
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ULP-1 DMGEKKIEFYDSL YDGN-----TAVLPALRGYLEAESL DKKKTAMNFSGWT----
ULP-2 AAPKCYIVFFDPLSGLD-----PSKKNHMCHCIKIYLAQLYENTKAPGMKFASKNPTIY
ULP-4 **FTAQARTVIFDSQLTAD-----LNNLQNMATLIESFMKYSYEKRTGNAMPFPLPC----**
ULP-5 NAGECRIIIMDSL VHSSKKYREVIDKTHDSTFDHIRLWL--LMSAAATD VDMFCTRF----
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ULP-1 -----IQQMTDIPRQQNGSDCGVFSCQFGE-----WASRR TTP--
ULP-2 DEERVVVTRAENTPIQDNFYDCGLYVLHFIEGLFCYPNRPVNVNDFPNFDWS--KFFPEA
ULP-4 **----ILPQRM--PQQTNNFDCGIFIAEFARRFLSPPK-----DLDNFDFA--REYP--**
ULP-5 --RKVVCQKL--PQQKNSVDCGIFMMAFAEYF-----TKYNTA-WQSLPT-
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ULP-1 -----RFTQK
ULP-2 NKMCDLMRDKVYNLILQQADKPARSRLAKFERENKCGLSREGALRKARRHS AVNERRTKR
ULP-4 **-----DFSTAT**
ULP-5 -----DALADL
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ULP-1 NMPYYRK-----RMVYEI-----VSKLLATI-----
ULP-2 HRDYARHYSLSPPHRNV MNDDPTFMNPRGLAEMPITRLVRRLRIPEDNFP-IAY
ULP-4 **KRTEMQRVVLSLSTN**RARWRP-----LVELLNGYSTAAPHRAL
ULP-5 KMDDDIKSL LNSETPRQRLDE-----LFQSLKA-----
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