14 426

tr|E1K4V0| M--------- ------RIGI SSSIFLDS-D KDLKYALEYL EK-KVRYVEL

tr|E1K6G0| MSCFYLMFIG ENMCELKIGC STLFFW---E YSIEIICDIF KDMNLNCMEF

tr|E1K572| MLGVCMRSKL GKIPCISIG- ---------- -----NLVQN RYMTFKHIDW

tr|E1K541| M--------- -----LNFGT AGIPINVK-P RTTIGAFDFL KKIGLNAMEI

tr|F2L4F0| M--------- ---ARVWLGP AGIPKYAKRA KDTVEGIRAV KELGLNAMEV

tr|F4B9Y8| M--------- ---PKIYLGT AGIPLSAK-G KSTIEGVKKV KELGLNAMEV

tr|E7QXB8| M------IVA GK-------- ---------C PPTADELRAA SERGFDAVEL

tr|D2S1E6| M--------- ------GVGY TTIMYDP--A EVLSEGLGDF AACRYDGVEI

tr|D2S1F8| M--------- ------GTGY TTIMYG---A ESIEDALGDI AACRYDGVEI

tr|E7QZB7| M--------- ARPAVQLYSL RTV------D EPLAKLITRA GDAGFEGVEF

tr|E7QZC9| M--------- SNPSDYSISV QSVVFR---S RSLGDLLDAL ESTDIDRLEL

tr|E7QQB9| M--------- ------DIGV HTPPLY---G ESLEDALAYL NDIGVDAIEP

tr|D2S0D9| M--------- ---------- ---------- -------EFM REEAVRRLEE

tr|E7QVD7| M--------- ---------- ---------- -------KFT REESLARLEK

NC-DG---NI NVMEKENMDI PNSYD----- ------LNYT LHCP---LTD

FP-----ENP EFW--ERRND LDYICSLKKE LKH---FNLI LHAP---TIE

GL-------- ---------- ----HYYPKI IKNK--SIIG FHAP---IVN

EFVRG----- -----VNIKE EKA-EELKDY SND---IILS VHAP-Y-YIN

EFVQG----- -----VRMGV EAA-ERAGEA ARELG-VKLS VHAP-Y-FIN

EFVQG----- -----VKMSI EKA-KELGEV AKTIG-VRLS VHAP-Y-YIN

HL-------- ------TTDD LDAIEETTAA CRAAPVDVVS VHTP-H----

GL-------- -----GKVEY IGV-DSLQES LEE---HGLD IYC-------

SL-------- -----EKIRA NDA-ETVDRW LDE---YDLE FYL-------

A--------- -----NRITD TDA-DAVKAA LDDGGIESVA AHVG---IDE

WG-------- -----EHLSP EDD-EATIAA GRRRI-EESS VAVDGYGVID

GV-GGYPGDT HLPRDEYLDD EEAQDELHDL LAE---YDMR ISAL---ATH

TVSND----- -----EPIIG AGAGTGMSAK FAERGGVDLL I------IYN

TIANG----- -----EPIIG AGAGTGISAK FAERGGVDML I------IYN

LNLSSFRDKI RKVSLDFVED ILKTADKVNA NL-------- ----------

LNPSSTNDYV HEASIKETLW SINLAKLYGA RY-------- ----------

LG---DKKDK SKTCLMTLKN IIDEIKGYNY LT-------- ----------

LN--AKEPEK VKSSMDRIIN SAKIISIFGK KS-------- -----KKNKN

LC--SDEAEK VEASIKRLWD SVDRAHRMGA WI-------- ----------

LC--SEEKEK IEASKNRILE TATRAEAMGA DA-------- ----------

---------- ---------- ---------- ---------- ----------

---VMAGWLN NEEDVDAAVR GAGIAAELDA RF-------- ----------

---AMSEWIE TEDAVRRVID DIPVAADLGA EF-------- ----------

LE-------- -----DDLDE TVSFYRSFGC DR-------- ----------

IE-------- ---DTGEARD SFAFAADLGA EY-------- ----------

NNPLHPDDEE AEEADTELRE AIRLADQLDV GTVTCFSGLP AGGPNDEYPN

SGRYRMNGRG SLAGLLPYGD ANEIVVDMGR QV------LP ----------

SGRYRMNGRG SLAGLLPYGD ANKIVVEMGH EV------LP ----------

-VVL-HPGYC VFKY-DYKKS LNALIQSLKD LNNIQKEYSI ---KITIENM

-ITI-HPGKR PTKRPPRKQE YDRFYRYLDE VLDYAKKNNI ---TLCLENL

-IHL-HNGKE PDK------- -DTLINNLSE ISDYAKKNNI ---KLCIENL

-VVF-HPGYY LKQD-K-NKV YRTMVKNINT ILSYLTENKI -NAMLRPETT

-VVV-HAAYY GKLG-P-DKC YDAVKERLGE LTDKMLDEGI DDVFIGVEIT

-IAI-HVAFY GKKS-KREEC LDEVKSSLGE ILDKSKELGI VNVKYGIETM

-VGL------ ---------- -DELA-YVQR ANDLCERLDA ---TLVVHST

-LGI-LPPPR GQTD-D---- -ATFDEWLDR ICTAADEAGV ---TPVIHHH

-VGI-LPPQR ARHD-G---- -DTVERWLSR ISEAAVDAGL ---RPLVHHH

-LVV--PWLD PEHF-ESEAA IDETAERLTS LARAVAEHDV ---ELGYHNH

-VTVNYPPAR ---------- -DDITE---E LVDLAEAFDL ---DVGIHNY

WITAPWPSEH EEAL-E-YQW EDVAIPYWQE LEAFADDHDV ---DLAIEMH

-VVEDTPVLA GVNGTDPFRQ MDVFIEDLKR ---------- -RGFSGVQNF

-VVEDTPVLA GVNGTDPFRQ MDVFIEDLKR ---------- -RGFSGVQNF

PSYS-----M FMFREPTD-- EIINNLG--- ---------- ----------

PKKI-----N YICYSPQEMG EVLNKYNNKY --DDPNNDKY KKNEKNNDL-

R--------K GFSSNPNNVI EMVDIC---- ---------- ----------

GK-------I SQFGNVDELI RLSEEL---- ---------- ----------

AR-------N NQFGSVEEAF GLAKELK--- ---------- ----------

AK-------E TAIGTLDEVI LLSKELDR-- ---------- ----------

KIPL------ ------SNLG YVLDRIDITV PHGFENSTGH SRHFLTNVL-

G--------A SHIESPEEIE EWLERAPD-- ---------- ----------

G--------A TSVEQPDEIR RYLDAVD--- ---------- ----------

DH------EF ETVGGRPAFE RFAEASGD-- ---------- ----------

ST-VHHDDLS TVFSGIDDVR SVVDRYDHP- ---------- ----------

P--------N MLVHEPAGML ELRNATGE-- ---------- ----------

PT-------V GLIDEDSQFR RNLEETGMGY ---DKEVEMI REAAEQEMLT

PT-------V GLIDEGSQFR QNIEETGMGY ---DKEVDMI QEAAEQDMLT

---------- ----DLGITF DIGHSFLN-- ----KNMGK- --FLDNDELI

---------- ----NLKMTL DFAHAK---- ----EEAQN- --FV--DRLN

---------- ----NCNITF DIGH------ ----TDYKYR DEFI--DIFS

---------- ----NILPCI DFAHIYARSL GKI-NDYDSF YKIM--ENME

---------- ----RVRPVV DWGHLYARNG GT--IDYGS- --VL--DLWR

---------- ----QIIPYI DWAHTFARQG GQ--IDYGE- --IL--DRLT

-----LDE-- ----GRPLVL DTAHLYTAE- ----AEYRS- --IL--ETLL

---------- ----NLELLY DTAHYQPY-- ----GDVID- --GI--HRFA

---------- ----GLELLF DTAHYYPYGD NFPDGDVTD- --GL--ERFA

---------- ----ALELEV DLGWATAAG- ----ADPTA- --FL--ERWS

---------- ----RLGVCI DTGHFLVMD- ----ESPAD- --VI--STVG

---------- ----RVGANF DPSHLYWQG- ----IDVPE- --AI--RFLG

CPYVFTEEQA REMTEAGADV IVSHMGLTTS ----GDIGAE -TALDLDAAA

CPYVFTEEQA REMTKVGADV IVSHMGLTTS ----GDIGAE -TALDLDDAA

KK-----I-- SHIHIHDNNG EFDE------ ---------- -------HLA

QY-----I-- KNIHISGVVN GKD------- ---------- -------HYP

NR-----I-- YNVHVYELEK DKI------- ---------- -------GHI

NTLGKKAIND MHVHLSGIEF GKGGEKN--- ---------- -------HLP

TTFGDEHM-- -HTHFTSVKY RNGRYVDE-- ---------- -------HEP

KELGLTHI-- -NSHFEGLEI RNGKYVDI-- ---------- -------HRS

AA---DDISI PVVHCCDGTK ITD------- ---------- -------GLA

DD-----I-- AYVHLKDIDP TVDFQDHVDT LTAGNVQYDS LFVFLTSFVD

DD-----I-- GYVHLKDVDP VKDFAANRDA LSDADFHLDN VINYFRSFTD

DR-----I-- PLVHVSDADE TRS------- ---------- -------PTE

DR-----I-- VAVHLKDTSD DEI------- ---------- -------EDL

EH---DAI-- HHFHAKDTKV YESQARYKGV LDTTPYTEEA NRSWLFRSVG

ER-------- VQAHHDAAKD VNDDVLVIC- ---------- -------HGG

ER-------- VQAHHDAAKA VNDDVMVIC- ---------- -------HGG

IGKGRIDFEK YKGNIKK--- IKGIKLVE-- -------MQN KSINDLDLCI

LELSQIDFSK PVNDLVYKYN YKNCFNLEID DKNCKIRSKN EKIEFIIKEA

APNNLDNLRS VLDKLLDNK- ---------- --CDFWLIEL MKLNEIIYTK

LDNSNFNYKD VLKILKDFN- TSGTVICE-- -------SPR MEYDALILKR

ISANMPPFEP LAEELSKRD- VAITLICE-- -------SPL LDQDALLMKE

IVYNTPPFEP LAREILKRD- ISITLICE-- -------SPE LENDALRMKK

FGTGTMDMER VITALHEN-- YDGIVVLE-- ------VMPD EQADALELWR

LGDGVIDFEA VDEALDEIG- YDGQITIE-- -------IEN ERDDRLVHAK

LGEGILDFEA IFETLSDAG- YEGHYTIE-- -------IEN RTERPLVHAK

VGDGVLDVPA CASAVRDAG- VEWA-IYEHD -------EPE APLESLSHGG

PGAGTLDLPT VLGLFDDHGA VDAPLVVEYE ------LPDD RVLPALREAE

YGHGEGHWKD IVSALRLVD- YDGALSIEHE ---------- ---DSLTSSR

PIAWPDDAEY VLNNTEGVAG FFGASSLERL PTEEAIENQA REFKSIEFR-

PIAWPDDAEY VLNNTEGVVG FFGASSLERL PTEEAIQNQA RDFKEIEF--

TRLKNLL--- ---------- -----V

EYLENLINKN ---------- -----K

NLLEDYLDNH ---------- -----K

VYME------ ---------- -----L

ILEKHGVRL- ---------- -----V

ILEDLGYKFG ---------- -----E

DVIRG----- ---------- -----R

RNIDHWTDAT D--------- -----A

RNYDYWAAVR N--------- -----A

GVLGR----- ---------- -----F

ENVRTAVEGG ---------- -----R

EGLEKAVELL QRAVFRTTPG EAYWAE

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