

Figure S2

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1      10      20      30      40      50      60      70
AtPreP1 MLRTVSVCLASRSSSSLLFRFRQFPPRSYMSLTSSTAALRVPSRNLRRISPPSVAGRLLLRRLGRIPSA
AtPreP2 MLRSLTCSSTITSTSLFFRSFRQLPRSYLSPSSSTTVVGASGRNIRRLSTLEAAGRLLFLRRGLKLLSAA
PreP_Sp .....
Mop112_Sc .....
PreP_Mm .....MWRFSGRRGLCA
PreP_Rn .....MWRFSGRRGLCA
hPreP .....MWRCGRRGLCV
PreP_Cf .....MWRCGGRAPGF
PreP_Bt .....MWRGGWRARGV
Fln_Pf .....MNLTKLMKVIGYINIIITNCVQSFTNRADKKRYNV

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80      90      100     110     120     130
AtPreP1 VRSVNGQF SRLS VRAVA TQPAPLYPDVGQDEA KLG FEKVSEEF IS ECKSKA I LFKHKK TGC E VMSVSN .
AtPreP2 SRGLNGQF SRLS IRAVA TQSAPSS YPGQDEA KLG FEKVSEEF IS ECKSKA V LFKHKK TGC E VMSVSN .
PreP_Sp .MNYAKLS IAFS KKT IKT HNCRLFRQLWLVGD K VHD FRVVDTK KVP ELQLNY TR LKH EPT NADMIHLDR .
Mop112_Sc .....MLRF QRFAS SYAQAAVARKYPVGG F HG YEVRRIL PVP ELRLTAV D LVHSQ TGA EHLHIDR .
PreP_Mm VQRLSCGR VHRV WREK SDQACERALQYKVG E K I HG FTVNQVT PVP ELFLTAV K LSHDN T GARYLHLAR .
PreP_Rn VQRLSSG VHHV WREK SDQACDRALQYKVG E K I HG FTVNQVT PVP ELFLTAV K LSHDN T GARYLHLAR .
hPreP LRRLSGGH AHHRAWRN SNRACERALQYKLG D K I HG FTVNQVT SVP ELFLTAV K LTHDD T GARYLHLAR .
PreP_Cf LRRSSGG ASPA WRRR GS SACERAQHKVGE Q I HG FTVSQVT A I P ELSLTAV K LSHDR T GARYLHLAR .
PreP_Bt LRRLSGG S AHLGAWR WGS TKACERALQYRIGE R I HG FTVNQVT PVP ELSLTAV K LSHD T GAQY LHLAR .
Fln_Pf FAKSFINT LINTN L Y T F K A V M S K T P E W I H E K S P K H N S Y D I I E K R Y N E E F K M T Y T V Q H K K A K T Q V I S L G T N

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140     150     160     170     180     190     200
AtPreP1 ..ED ENKVF G V V FRT PPKDSTGIPHLEHSVLCGSRKYPVKEPFFVELLKGSLHTFDLNAFTYPTDRTCYPVA
AtPreP2 ..DD ENKVF G I V FRT PPKDSTGIPHLEHSVLCGSRKYPVKEPFFVELLKGSLHTFDLNAFTYPTDRTCYPVA
PreP_Sp ..ED ENSVFSIGFQTPAENDEGIPHLEHTTLCGSKYYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
Mop112_Sc ..DD KNNVFSIAFKTNPEDSTGVPHLEHTTLCGSKYYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
PreP_Mm ..ED KNNLFSVQFRTTFMDSTGVPHLEHTVLCGSKYYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
PreP_Rn ..ED KNNLFSVQFRTTFMDSTGVPHLEHTVLCGSKYYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
hPreP ..ED TNNLFSVQFRTTFMDSTGVPHLEHTVLCGSKYYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
PreP_Cf ..ED SNNLFSVQFRTTFMDSSGVPHLEHTVLCGSHRYPCRDPPFKMLNRSLATFMNAFTASDFTYPPFA
PreP_Bt ..ED GNNLFSVQFRTTFDSSGAPHLEHTVLCGSRYPVRDPPFKMLNRSLATFMNAFTASDFTYPPFA
Fln_Pf DPLDVEQAFAYVKT LTHSGKGIPHLEHSVLCGSKNNYKNSIGLLEKGT LHTHNAFTYPTDRTVYMA G

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M97
Zn-Binding site
M126
M135

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210     220     230     240     250     260
AtPreP1 STNPKDFYNLVDVYLDVAVFPKCVDDAHTFQEGWHYELN...DPSED...ISYKGVVFNEM
AtPreP2 STNPKDFYNLVDVYLDVAVFPKCVDDVHTFQEGWHYELN...DPSED...ISYKGVVFNEM
PreP_Sp TTNPKDFYKDLVDVYLDATLFPKLRK...LDFLQEGWRFHADVNDKKS...IIFNGVVYFNM
Mop112_Sc TTNPKDFANLRGVYLDSTLNP L L K O . . E D F D E G W R L E H K N I T D P E S N . . . . . I V F K G V V F N E M
PreP_Mm TONPKDFQNLISVYLDATFFPCLRE..LDFWQEGWRLHEHNPRDPQTP...LIFKGVVFNEM
PreP_Rn TONPKDFQNLISVYLDATFFPCLRE..LDFWQEGWRLHEHEDPSDPQTP...LIFKGVVFNEM
hPreP TONPKDFQNLISVYLDATFFPCLRE..LDFWQEGWRLHEHNPSDPQTP...LVFKGVVFNEM
PreP_Cf TONPKDFQNLISVYLDVAVFPCLRE..LDFWQEGWRLHEHNPRDPQTP...LIFKGVVFNEM
PreP_Bt TONPKDFQNLISVYLDAAFPCLRE..LDFWQEGWRLHEHEDPNDPQTP...LVFKGVVFNEM
Fln_Pf SMNPKDFNIMGVYMDSVFQPNVLENKYIFEQEGWTEYVLEKLEDEKGAEI PQMKDYK V S F N G I V Y F N E M

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M206

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270     280     290     300     310     320     330
AtPreP1 KGVYSQPDNITGRIAQOALS PENTYGVDSGGDKDIPNLTPEEFKFEFRQY YHPSNARIWFGDDDPVHR
AtPreP2 KGVYSQPDNILGRVTQALCPENTYGVDSGGDKDIPKLTPEFKFKEFRQY YHPSNARIWFGDDDPVHR
PreP_Sp KGOVSDSSYIFYMLFQOHLFOGTAYGFNSGGDLAIPDLKYEELVKFRRSHYHPSNAKILSYGSFPLEDN
Mop112_Sc KGOISNANYIFWSKFOOSIY P . . S I N N S G G D P M K I T D L R Y G D L D F H H K N Y H P S N A K T F T Y G N L P L V D T
PreP_Mm KGAFTDNERIFSQHLQNRLLPDHTYSVVSGGDLCEPELTWEQLKOFHATHYHPSNARFFTYGNFPLEGH
PreP_Rn KGAFTDNERIFSQHLQNRLLPDHTYSVVSGGDLCEPELTWEQLKOFHATHYHPSNARFFTYGNFPLEGH
hPreP KGAFTDNERIFSQHLQNRLLPDHTYSVVSGGDLCEPELTWEQLKOFHATHYHPSNARFFTYGNFPLEGH
PreP_Cf KGAFTDNERIFSQHLQNRLLPDHTYSVVSGGDLCEIPDLTWEQLRRFHAMHYHPSNARFFTYGNFPLEQH
PreP_Bt KGAFTDNERIFSQHLQNRLLPDHTYSVVSGGDLCEIPDLTWEQLRRFHAMHYHPSNARFFTYGNFPLEQH
Fln_Pf KGALESPLLEDLYHEEMKYMF P D N V H S N N S G G D P K E I T N L T Y E E F K E F Y K N Y N P K K V K V F F E S K N N P T E L

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340     350     360     370     380     390
AtPreP1 LRVLS EYLDMF EAS P S P N S S K I K F Q K L F S E P V R L V E K Y P A G R D G D L K K H M L C V N W L L S E K P L D L . . . . .
AtPreP2 LRVLS EYLDMF D A S P A R D S S K V E P Q K L F S R P R I V E K Y P A G E D G D L K K H M V C L N W L L S D K P L D L . . . . .
PreP_Sp L S A L S E T F R P F S K R . E L N L P N T F L K E F D Q E K R . . V V E Y G L P D P V M A P G R Q V K T S I S F L A N D T S N . . . . .
Mop112_Sc L K Q I N E Q F S G Y K R . A R K D K L L M P I D L K K D I . . V K L L G Q I D T M L P P E K Q T K A S M T W I C G A P Q D T . . . . .
PreP_Mm L K Q I H E E A L S K F Q R . L E Q S T A V P A O P H W D K P R E F H I T C G P D S L A T E T A K Q T V S V S F L L P D I T D T . . . . .
PreP_Rn L K Q I H E E A L S K F Q K . M E E S T A V P A O K Y W D K P R E F H I T C G P D S L A T A T K Q T V S V S F L L P . . . . .
hPreP L K Q I H E E A L S K F Q K . I E P S T V V P A T P W D K P R E F Q I T C G P D S F A T D P S K Q T T V S V S F L L P D I T D T . . . . .
PreP_Cf L K Q I H K E A L S K F E K . I E T N T A V P A O K P W D K P R E F Q I T C G P D S L A A D S S K Q T T V G V S F L L P D I T D T . . . . .
PreP_Bt L K Q I H E E A L S K F Q R . I E P R T S V P A O K P W D E P R E F Q I T C A P D S L A E G P S G Q T T I S V S F L L P E I T D T . . . . .
Fln_Pf L N F V D Q Y L G Q L D Y S . K Y R D D A V E S V E Y Q T Y K G P F Y I K K Y G D H S E E K E N L V S V A W L L N P K V D K T N N H N N

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400 410 420 430 440

AtPreP1QTQLALGFLDHLMLGTPASPLRKILLESGLG.EALVSSGLSDE
 AtPreP2QTQLALGFLDHLMLGTPASPLRKILLESGLG.EALVNSGMEDE
 PreP_SpYETFALKVLSKLCFDGFSSPFYKALIESGLGTDFAFNSGYDST
 Mop112_ScYDTFLLKVLGNLLMDGHSSVMYQKLIIESGIGLEFVSNSGVPEPT
 PreP_MmFEAFTLSLLSSLLIAGPNSPFYKALIESGLGTDFFSDVGYNGY
 PreP_RnFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTDFFSDVGYNGY
 hPrePFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTDFFSDVGYNGY
 PreP_CfFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTDFFSDVGYNGY
 PreP_BtFEAFTLSLLSSLLTSGPNSPFYKALIESGLGTDFFSDVGYNGY
 Fln_Pf NHSNNQSSENNGYSNGSHSSDLSLENPTDYFVLLIINNLLIHTPESVLYKALTDCLG.LNNVIDRGLNDS

450 460 470 480 490 500

AtPreP1 LLQPQFGIGLKGVS.....EENVQKVEELIMDTLKKLA.EEGFDNDAVEASMTNTEIEFSLRENNNTGSF
 AtPreP2 LLQPQFSIGLKGVS.....DDNVQKVEELVMNTRKLA.DEGFDTDAVEASMTNTEIEFSLRENNNTGSS
 PreP_Sp TKRGIFSVGLEGAS.....EESLAKIENLVYSIFNDLAL.KGFENEKLEAILHQMEISLKKH...SA
 Mop112_Sc TAVNLLTVGIQGV.....DIEIFKDTVNNIFQNLETEHPFDRKRIDAITEOLELSKKDQ...KA
 PreP_Mm TREAYFSVGLQGI.....EKDVKTVRELVDRITIEEVI.EKGFEDDRIEALLHKIEIQMKHQ...SA
 PreP_Rn TREAYFSVGLQGI.....EKDVKTVRELVDRITIEEVI.EKGFEDDRIEALLHKIEIQMKHQ...SA
 hPreP TREAYFSVGLQGI.....EKDIETVRSRIDRTIDEVVEKGFEDDRIEALLHKIEIQMKHQ...ST
 PreP_Cf TREAYFSVGLQGIS.....EQDTQSVRDIIDRTIEEVI.EKGFEDDRIEALLHKIEIQMKHQ...SV
 PreP_Bt TREAYFSVGLQGI.....EKDVQTVRDIIDRTIIDDVIEKGFEDDRIEALLHKIEIQMKHQ...SV
 Fln_Pf LVQYIFSIGLKGIKRNNKIKNFDFKVHYEVEDVIMNALKKVV.KEGFNKSAVEASINTEIEFSLRENNNTGSS

510 520 530 540 550 560 570

AtPreP1 PRGLSMLQSIKWIYDMDFEPKLYTEPKLAKTRIAEESGSKAVFSPLEKELTLNNSHRVTIEMQPPDE
 AtPreP2 PRGLSMLQSIKWIYDMDFEPKLYTEPKLAKTRIAEESGSKAVFSPLEKELTLNNSHRVTIEMQPPDE
 PreP_Sp HFGLLAQSLPFWFNAGDPPADWLSFNKQIEWLK...QKNSD.GKLFQKLIKKYILENKSFRVFTMLPSSST
 Mop112_Sc DFGLLLYSILPGWTKIDPFESLLEFEDVLRFRGDLTKG.DTLFQDLIRKYIVHHP.CFTFSIQGSEEE
 PreP_Mm SFGLTLTSYIASCWNHDGDPVELLQIGSOLTRFRKCKLEN...PKFLOEKVEQYFKNNQHKLTLSMKPDDK
 PreP_Rn SFGLTLTSYIASCWNHDGDPVELLQIGSOLTRFRKCKLEN...PKFLOEKVEQYFKNNPHRLTLSMKPDDK
 hPreP SFGLTLTSYIASCWNHDGDPVELLQIGSOLTRFRKCKLEN...PKFLOEKVEQYFKNNQHKLTLSMKPDDK
 PreP_Cf SFGLTLTSYIASCWNHDGDPVELLQIGSOLTRFRKCKLEN...PKFLOEKVEQYFKNNPHKLTLSMKPDDK
 PreP_Bt SFGLTLTSYIASCWNHDGDPVELLQIGSOLTRFRKCKLEN...PKFLOEKVEQYFKNNRHKLTLSMKPDDK
 Fln_Pf SKSLIDFVFMTSKLNYNRDPVLLIFEFKYLNIVKKNKIKNE...PMYLEKFEVKEHFIINNAHRSVIILLEGDEN

M504

580 590 600 610 620 630 640

AtPreP1 KAQOEVEEKNILEKVKAAAMTEEDLAEIARATBELKLEKQETFPDPEALRCVPSLNLGDIIPKEPTYVPTTEV
 AtPreP2 KAQOEVEEKNILEKVKAAAMTEEDLAEIARATBELKLEKQETFPDPEALRCVPSLNLGDIIPKEPTYVPTTEV
 PreP_Sp FPKRLQEAQAKKLOERTSKLTDEDIAEIKTSVKLLEAQSTPAD...TSCPLTSLVSDIPEPTIDEKTKLKF
 Mop112_Sc FSKSLDDEEQTRLREKITALDEODKKNIFKRGILLQEKQNEKED...LSCLPTLQIKDIPRAGDKYSIEQ
 PreP_Mm YYEKQTMETEKLQKVNLSLSPADKQIYKGLLELOQOQSKHQD...ASCLPALKVSDIEPSPFFTKLDI
 PreP_Rn YYEKQTMETEKLQKVNLSLSPADKQIYKGLLELOQOQSKHQD...ASCLPALKVSDIEPMPFFTKFDI
 hPreP YHKAQAVAEATKLKQKVEALSQCRRQIYKGLLELRSQOQSKHQD...ASCLPALKVSDIEPTIPVTELDV
 PreP_Cf YHKAQAVAEATKLKQKVNLSLSPADKQIYKGLLELOQOQSKHQD...ASCLPALKVSDIEPMSFTLELV
 PreP_Bt YHKAQAVAEATKLQKVTSLSPADKQIYKGLLELOQOQSKHQD...ASCLPALKVSDIEPMPVTELV
 Fln_Pf YAEQENLEKQELKKRIENFNEOEKEQVINKFELISKYKNAEESPEHLNKFPIIISIDLNKRTLEVPVNV

650

AtPreP1 GDIT.....NGVKVL
 AtPreP2 GDIT.....NGVKVL
 PreP_Sp LDIT.....AGMKAO
 Mop112_Sc KNIN.....TMSRIT
 PreP_Mm GLA.....AGDIPV
 PreP_Rn ALS.....AGDIPV
 hPreP VLT.....AGDIPV
 PreP_Cf ALA.....AGETPV
 PreP_Bt VQA.....ARDTPV
 Fln_Pf YFTINENNNIMETYNKIKTNEHMLKDNMDVFLKKYVVKNDKHNNTNNNNNNNNMMDYSFTETKYEGNVPI

660 670 680 690 700 710

AtPreP1 RHDLFNTN.DIITYTEVVFDMGSLKHELPLVPLFCQSLLEMGTKD.LTFVQLNQLIQRKTEGGISVYPLTSSV
 AtPreP2 RNDLFNTN.NIITYTEVVFDMGSKHLLQLIPLFCQSLLEMGTKD.LTFVQLNQLIQRKTEGGISVYPLTSSV
 PreP_Sp WYDLAAG..LTYIRLLPLKNFPELIPYLPVYDACLNLGTHSESIGDLHQIRRYTEGGISVYPLTSSV
 Mop112_Sc DTNGITY..VRGKRLLN..DIPPELFPYLPFAESLTLNLGTTTEFSFIEDIQIKLHTGGIST.HVEVTS
 PreP_Mm QYCPQPTNGMVFYRAFSSLNTLPEELRPYVPLFCQSVLTKLCCGILNRYEQAAQIELKTEGMSVTPHVPD
 PreP_Rn QYCPQPTNGMVFYRAFSSLNTLPEELRPYVPLFCQSVLTKLCCGILNRYEQAAQIELKTEGMSVTPHVPD
 hPreP QYCAQPTNGMVFYRAFSSLNTLPEELRPYVPLFCQSVLTKLCCGILDYREQAQIELKTEGMSASPHVLPD
 PreP_Cf QYCAQPTNGMVFYRAFSLHTLPNELRPYVPLFCQSVLTKLCCGILDYREQAQIELKTEGMSVTPHVPD
 PreP_Bt QYCAQPTNGMVFYRAFSSLNTLPEELRPYVPLFCQSVLTKLCCGILDYRELAQVLEKTEGMSASPHVLPD
 Fln_Pf LVYEMPTTGIVVYQFVFSLDHLTVDELAYLNLFKTLLENKTNKRSSSEDFVILRERKNIGSMSANVALYK

720 730 740 750 760 770 780
AtPreP1 RG.KDEPCSK... IIVRGKSMAGRAEDLFNLMNCVLLQEVQFT.DQORFKQFVSSQRARMENRLRGS^{GH}
AtPreP2 YG.RDDPCSK... IIVRGKSMVGR AEDLFNLMNCVLLQEVQFT.DQORFKQFVSSQRARMENRLRGS^{GH}
PreP_Sp NSDVSKEYELG... IAISSGYALDKNVGVKLVLELNKAFWNTNLS.NTDKLAIMLKTSSVSGITDGI^{AEGH}
Mop112_Sc DPNTTEPRLI... FGFDFGWSLNSKTDHIFEFWSKILL^{ETD}FHKNSDKLVKVLIRLLASSNTSSV^{ADAGH}
PreP_Mm DSQLDTYE... VLFSSSLC LERNLDPMMHLWSEIFN^{PCFE}.EEHFKVLV^{KMTAQE}LSNGIPD^{SGH}
PreP_Rn DSQLDTYE... VLFSSSLC LERNLDPMMHLWSEIFN^{PCFE}.EEHFKVLV^{KMTAQE}LSNGIPD^{SGH}
hPreP DSHMDTYE... VLFSSSLC LERNLDPMMHLWSEIFN^{PCFE}.EEHFKVLV^{KMTAQE}LSNGIPD^{SGH}
PreP_Cf DVHLDTYE... VLFSSSFC LDRNLPDMMHLWSEIFN^{PCFE}.EEHFKVLV^{KMTAQE}LSNGIPD^{SGH}
PreP_Bt DSHLNTYE... VLFSSSFC LDRNLPDMMHLWSEILN^{PCFE}.EEHFKVLV^{KMTAQE}LSNGIPD^{SGH}
Fln_Pf DDHLNVTDKYNAQALFNL^{EMHV}L^{SHK}CND^{ALN}TAL^{EA}VK^{ESD}F^SN^{KKK}V^{IDI}L^LR^KI^{NG}M^{KT}F^{SE}K^{GV}

790 800 810 820 830 840
AtPreP1 GI^{AA}ARM^DAM^{LN}I^{AG}W^{MS}E^QMG^{GL}S^YL^{EF}L^HT^{LE}E^{KK}... V^{DE}D^WE^GI^{SS}S^LE^EI^{RR}S^{LL}AR^{NG}C^{IV}N^{MT}.
AtPreP2 GI^{AA}ARM^DAM^{LN}V^{AG}W^{MS}E^QMG^{GL}S^YL^{EF}L^HT^{LE}E^QK... V^{DD}Q^WE^GI^{SS}S^LE^EI^{RR}S^{FL}SR^{NG}C^{IV}N^{MT}.
PreP_Sp SF^{AK}V^{SS}AS^{GL}E^{KT}S^{IT}E^{QL}G^LT^QV^{KL}S^{QL}... R^{ES}F^G.P^LV^EK^LT^AI^{RE}I^LR^{GT}S^{GF}K^AI^N.
Mop112_Sc AF^{ARG}Y^{SA}AH^YR^{SS}G^{AIN}E^TLN^GI^EQ^LF^{IN}R^LHS^LLD^NE^{ET}F^QR^EV^VD^KL^ET^EL^QK^YI^VD^TN^NM^NF^{IT}S
PreP_Mm LY^{AA}L^{RA}S^KT^LT^PS^{GD}L^QE^TF^SG^{MD}Q^VK^VM^KR^{IA}... E^{MT}D^IK^PI^LR^KL^PR^IK^YL^LN^CD^NM^RC^{SV}N.
PreP_Rn LY^{AA}L^{RA}G^KT^LT^PA^{GD}L^QE^TF^SG^{MD}Q^VK^VM^KR^{IA}... E^{MT}D^IK^PI^LR^KL^PR^IK^YL^LN^CD^NM^RC^{SV}N.
hPreP LY^{AS}I^RA^GR^TL^TP^{AG}D^LQ^ET^FS^GM^DQ^VR^LM^KR^{IA}... E^{MT}D^IK^PI^LR^KL^PR^IK^YL^LN^CD^NM^RC^{SV}N.
PreP_Cf LY^{AS}V^{RA}S^RT^LT^PT^GD^LQ^ET^FS^GM^EQ^VK^LM^KR^{IA}... E^{MT}D^LG^PV^LR^KL^PH^IO^KH^VL^HR^DN^MR^CS^MN.
PreP_Bt LY^{AS}I^RA^GR^TL^TP^{AG}D^LQ^ET^FS^GM^DQ^VL^LM^KR^{IA}... E^{MT}D^LQ^PV^LG^KL^LR^IW^KH^LL^SC^DS^LR^CS^VN.
Fln_Pf AI^LM^KY^VK^AH^LN^SK^HY^AH^NI^IY^GY^EN^YL^KL^QE^QL^EL... A^{EN}D^FK^TL^{EN}I^LV^RI^RN^KI^FN^KN^LM^VS^TS

850 860 870 880
AtPreP1 ADG^KS^LT^NV^EK^SV^AK^FL^LL^PENP... S^GL^VT^WD^GR^LP^LR
AtPreP2 ADG^KS^LT^NT^EK^YV^GK^FL^LL^PENP... S^GE^LV^TW^DA^RL^PL^R
PreP_Sp AS^PT^QH^EV^VE^KA^LQ^KF^MK... S^RG^VN^QO^T... Q^TK^ST^SK^ER^NG^IN^SI
Mop112_Sc DSD^VQ^AK^TV^ES^OI^SK^FM^ER^LP^HG^SC^LP^N... G^PK^TS^DY^PL^IG^SK^CK
PreP_Mm ATP^QM^PQ^AE^KE^VE^NF^LR^NV^GR^SK^KE^RK^PV^RP^HI^VE^KP^TP^SG^PS^GA^AH^VS^G.S^QI^VR^KL^VT^DP^TF^KP^CQ^M
PreP_Rn ATP^QM^PQ^AE^KE^VE^NF^LR^NV^GR^SK^KE^RK^PV^RP^HI^VE^KP^TP^SG^PS^GA^AH^AD^G.S^QI^IR^KL^IT^DP^TF^KP^CQ^M
hPreP ATP^QM^PQ^TE^RA^VE^DF^LR^SI^GR^SK^KE^RR^PV^RP^HT^VE^KP^VP^SS^GD^AH^VP^HG^SQ^VI^RK^LM^EP^TF^KP^WQ^M
PreP_Cf ATP^QM^SL^AA^KA^VE^KF^IR^SL^SW^SK^KE^QE^PV^CP^VV^EK^PA^PG^GS^SV^SH^VS^G.P^RV^LR^KL^IT^DP^TF^KP^CQ^M
PreP_Bt ATA^QM^LQ^VE^GA^VE^AF^LR^SL^SR^TE^KE^QR^SM^CP^HV^VE^KP^AP^KA^SS^GS... C^LV^IR^RL^VT^DP^TF^EP^CQ^M
Fln_Pf DY^GA^LK^HL^FV^NS^NE^SL^KN^LV^SY^FE^EN^DK^YI^ND^MQ^NK^VN^DP^TV^MG^WN... E^IK^SK^LF^DE^EK^V

890 900 910 920 930 940 950
AtPreP1 N^EA^IV^IP^TQ^VN^YV^GK^AG^NI^YS^TG^YE^LD^GS^AY^VI^SK^HI^SN^TW^LD^RV^RV^SG^GA^YG^FC^DF^DS^HS^VF^SY^LS
AtPreP2 N^EA^IV^IP^TQ^VN^YV^GK^AG^NI^YS^SG^YK^LD^GS^SY^VI^SK^HI^SN^TW^LD^RV^RV^SG^GA^YG^SC^DF^DS^HS^VF^SL^S
PreP_Sp K^TY^HE^LP^FQ^TY^FA^KS^CL^GV^PY^TH^PD^GA^PL^OI^LS^SL^TH^KY^LH^GE^IR^EK^GA^GL^SY^SG^ID^CV^LS^FF^T
Mop112_Sc H^TL^LK^FP^FQ^VY^HT^SQ^AL^LG^VP^YT^HK^DG^SA^LO^VM^SN^ML^TF^KH^LH^RE^VR^EK^GA^GY^GA^GL^SY^SA^LA^GI^FS^FY^S
PreP_Mm K^TH^FV^LP^FP^VN^YV^GE^CV^RT^VP^YA^DP^DH^AS^LK^IL^AR^LM^TA^KF^LH^TE^IR^EK^GA^GY^GA^KL^T.H^SG^IF^TL^YS
PreP_Rn K^TH^FV^LP^FP^VN^YV^GE^CV^RT^VP^YA^DP^DH^AS^LK^IL^AR^LM^TA^KF^LH^TE^IR^EK^GA^GY^GA^KV^T.H^TG^IF^TL^YS
hPreP K^TH^FL^MP^FP^VN^YV^GE^CI^RT^AP^TD^PD^HA^SL^KI^LA^RL^MT^AK^FL^HT^EI^RE^KG^AG^YG^AK^LS.H^NG^IF^TL^YS
PreP_Cf K^TH^FL^MP^FP^VN^YV^GE^CI^RT^AP^TD^PD^HA^SL^KI^LA^RL^MT^AK^FL^HT^EI^RE^KG^AG^YG^AK^LS.H^NG^IF^TL^YS
PreP_Bt K^TH^FL^LP^FP^VN^YV^AE^CI^RT^AP^TA^DP^DH^AS^LK^IL^AR^LM^TA^KF^LH^TE^IR^EK^GA^GY^GA^KL^S.Y^GM^FT^LY^S
Fln_Pf K^EF^FV^LP^TF^NS^VS^MS^GL^FK^PG^EY^LD^PS^FT^VI^VA^LK^NS^YL^WD^TV^RE^LN^GA^YG^VF^AD^IE^YD^CS^VF^LS

960 970 980 990 1000 1010 1020
AtPreP1 Y^RD^PN^LL^KT^LD^IY^DG^TG^DF^LR^{.GLD}V^DO^E.T^LT^KA^II^GT^IG^DV^DS^YQ^LP^DA^KG^YS^SL^LR^HL^LG^VT^DE^RO
AtPreP2 Y^RD^PN^LL^KT^LD^IY^DG^TG^DF^LR^{.GLD}V^DE^D.T^LT^KA^II^GT^IG^DV^DS^YQ^LP^DA^KG^YT^SL^LR^HL^LN^VT^DE^RO
PreP_Sp Y^RD^SQ^LL^NV^SF^DE^AS^EW^AT^{.THE}F^SQ^R.D^ID^EA^KL^IV^FQ^ID^SP^VS^ES^QK...G^ML^FH^VD^SG^VT^DE^ML^O
Mop112_Sc Y^RD^PQ^PL^KS^LE^TF^KN^SG^RY^IL^ND^AK^WG^VR^{.D}L^DE^AK^LT^IF^QQ^VD^AP^KS^PK^E...G^VT^YF^MS^GV^TD^DM^KQ
PreP_Mm Y^RD^PN^SI^ET^LQ^SF^GK^AI^DW^AK^{.SG}K^FT^Q.D^ID^EA^KL^SV^FS^TV^DS^PV^AP^SD^K...G^MD^HF^LY^GL^SD^EM^KQ
PreP_Rn Y^RD^PN^SI^ET^LQ^SF^GK^AI^DW^AK^{.SG}K^FT^Q.D^ID^EA^KL^SV^FS^TV^DS^PV^AP^SD^K...G^MD^HF^LY^GL^SD^EM^KQ
hPreP Y^RD^PN^SI^ET^LQ^SF^GK^AI^DW^AK^{.SG}K^FT^Q.D^ID^EA^KL^SV^FS^TI^DA^PV^AP^SD^K...G^MD^HF^LY^GL^SD^EM^KQ
PreP_Cf Y^RD^PR^ST^ET^LQ^SF^MK^AI^DW^AK^{.A}G^RF^TQ^Q.D^ID^EA^KL^SV^FS^VV^DA^PV^AP^SD^R...G^LD^HF^LC^GL^SD^EM^KQ
PreP_Bt Y^RD^PR^ST^ET^LQ^SF^MK^AI^DW^AK^{.A}G^RF^TQ^Q.D^ID^EA^KL^SV^FS^VV^DA^PV^AP^SD^K...G^LD^HF^LY^GL^SD^EM^KQ
Fln_Pf A^RD^PN^LE^KT^AT^FR^ES^AK^GL^RK^MA^DT^MT^EN^DL^RY^II^NT^IG^TI^DK^PR^RG^IE^LS^KL^SF^LR^LI^SN^ES^EQ^DR^V

1030 1040 1050 1060 1070 1080
AtPreP1 R^KR^EE^IL^TS^LK^DF^KD^FA^QA^ID^VV^RD^KG^VA^VA^VA^SA^ED^ID^AA^NN^ER^SN^FF^EV^KK^AL..
AtPreP2 I^RR^EE^IL^ST^SL^KD^FK^EF^AE^AI^DS^VS^DK^GV^AV^AV^AS^QE^DI^DA^AN^RR^SN^FF^EV^KK^AL..
PreP_Sp N^RR^KQ^LL^NV^SA^ND^LK^AV^AK^KY^LV^NP^KK^SY^T.A^VL^GP^KS^E.K^QL^PT^WV^ID^KF^ES...
Mop112_Sc A^RR^EQ^LL^DV^SL^LD^VH^RV^AE^KY^LL^N.K^EG^VS^{.T}V^IG^PI^EG^KT^VS^PN^WE^VK^EL...
PreP_Mm A^YR^EQ^LF^AV^NH^DK^LT^SV^SH^KY^LG^IG^ST^HG^LA^IL^GP^EN^SK^IA^KD^PS^WI^K...
PreP_Rn T^YR^EQ^LF^AV^TH^DK^LT^SV^SH^KY^LG^IG^ST^HG^LA^IL^GP^EN^SK^LA^KD^PS^WI^R...
hPreP A^HR^EQ^LF^AV^SH^DK^LL^AV^SD^RY^LG^TG^ST^HG^LA^IL^GP^EN^PK^IA^KD^PS^WI^R...
PreP_Cf V^HR^EQ^LF^AV^SR^EG^LI^NV^ST^KY^LG^IG^ST^HG^LA^LL^GP^EN^AE^IA^KD^PS^WI^R...
PreP_Bt V^HR^EQ^LF^TV^CH^ED^LV^DV^SN^RY^LG^AR^ST^HG^VA^LL^GP^DN^AS^IA^KD^PS^WI^RQ^R...
Fln_Pf E^FR^KR^IM^NT^KK^ED^FY^KF^AD^LL^ES^KV^NE^FE^KN^LV^II^TT^TK^EK^AN^EY^IA^NV^DG^EF^KV^LI^E