Figure S1. Kinetic analysis of 5'-3' exonuclease activity. The Lineweaver-Burk plots of Spn PolI-(his) derivatives are depicted. Velocities of conversion of $v_{15,14}$ (•) and $v_{14,13}$ (•) were measured at different substrate concentrations as indicated in Experimental Procedures using 22 nM Spn PolI-(his) (WT), 9 nM Spn PolIE88K-(his), 17 nM Spn PolIE114G-(his) or 41 nM Spn PolID10G-(his). The figures are the average of at least three independent experiments in which exonucleolytic rates were tested at four time points 2.5, 5.0, 7.5 and 10 min for WT and the E88K mutant, and 10, 15, 20 and 30 min for the E114G and D10G mutants. The double reciprocal plots were fitted by a linear least-squares regression analysis.

Figure S2. Alignment of the amino acid sequences of the 5'nucleolytic domain of 38 prokaryotic and eukaryotic proteins. The alignment of 18 sequences from Xu et al. (7), with minor adjustments, was used with the program PileUp (GCG software package) to compare the 5' exonuclease domains of the DNA polymerase I analogs from: Streptococcus pneumoniae (Spn Pol; EMBL accession no. P13252), Aquifex aeolicus (Aae Pol; EMBL accession no. 067550), Chlamydia trachomatis (Ctr Pol; EMBL accession no. Q9Z7U2), Anaerocellum thermophilum (Ath Pol; EMBL accession no. Q59156), Deinococcus radiodurans (Dra Pol; EMBL accession no. P52027), Mycobacterium tuberculosis (Mtb Pol; EMBL accession no. Q07700), Thermus aquaticus (Taq Pol; EMBL accession no. P19821), Borrelia burgdorferi (Bbu Pol; EMBL accession no. O51498), Escherichia coli (Eco Pol; EMBL accession no. P00582), Thermus aquaticus subsp. caldophilus (Tca Pol; EMBL accession no. P80194), Bacillus caldotenax (Bca_Pol; EMBL accession no. Q04957), Thermus filiformis (Tfi Pol; EMBL accession no. O52225), Haemophilus influenzae (Hin Pol; EMBL accession no. P43741), Rickettsia prowazekii (Rpr Pol; EMBL accession no. O05949), Thermus aquaticus subsp. flavus (Tfl Pol; EMBL accession no. P30313), Helicobacter pylori (Hpy Pol; EMBL accession no. P56105), Treponema pallidum (Tpa Pol; EMBL accession no. P74933), Bacillus subtilis (Bsu Pol; EMBL accession no. O34996), Lactococcus lactis subsp. cremoris (Lla Pol; EMBL accession no. O32801), Thermus aquaticus subsp. thermophilus (Tth Pol; EMBL accession no. P52028), Chloroflexus aurantiacus (Cla Pol; EMBL accession no. 008307), Chlamydia pneumoniae (Cpn Pol; EMBL accession no. Q9Z7U2), Mycobacterium leprae (Mle Pol; EMBL accession no. P46835), *Rhodothermus* sp. (Rhodothermus Pol;

EMBL accession no. Q9ZIG3), and Synechocystis sp. (Synechocystis Pol; EMBL accession no. Q55971), and the DNA polymerases I from Bacillus stearothermophilus gene polG1-encoded (Bst Pol; EMBL accession no. Q45458) and gene polA-encoded (Bst PolA; EMBL accession no. P52026). Nine additional 5' nucleases were added to the alignment: the gene 6-encoded exonuclease from bacteriophage T3 (T3 exo; EMBL accession no. P20321), the RNasaH from bacteriophage T4 (T4 exo; EMBL accession no. P13319), the 5' nuclease gene D15-encoded from bacteriophage T5 (T5 exo; EMBL accession no. P06229), the exonuclease gene 6-encoded from bacteriophage T7 (T7 exo; EMBL accession no. P00638), the exonuclease from Mycobacterium tuberculosis (Mtb exo; EMBL accession no. Q07700), the exonuclease IX from Escherichia coli (Eco exo; EMBL accession no. P38506), and 3 potential 5'-3' exonucleases from Bacillus subtilis (Bsu exo; EMBL accession no. P54161), Mycoplasma genitalium (Mge exo; EMBL accession no. Q49406) and the gene polAencoded from Mycoplasma pneumoniae (Mpn exo; EMBL accession no. P75403). Additionally, the eukaryotic flap type I endonucleases from human (hFEN-1; EMBL accession no. P39748) and arquibacteria Methanococcus jannaschii (MjFEN-1; EMBL accession no. Q58839) were included. Residues identical in at least 80% of the sequences are highlighted on a black ground and those similar in at least 80 % are on a gray shaded ground. The resulting consensus sequence is shown.

Figure S3. Hill plots of the data presented in Fig. 5. Plots were generated by a linear least-squares fitting of the data. The Hill coefficient *n* were obtained for each protein from the slope and, the values are shown in the figure.



Figure S1

Figure S2

Spn_Pol	1	MDKKI	TOTTADGSSVARADFAL.YQQ
Aae_Pol	1		TYTEDIGSSEV RS FA
Ctr_Pol	1		(FMDVSGFV RAMFA
Ath_Pol	1		EVEFDGNSIL RADFA
Dra_Pol	1	MADASPDPSKPDJ	TEMPEDGHALA RSMFA
Mtb_Pol	1	MVTTASAPSEDRAKP	MARCDGNSLA RAYAL.PA.
Tag_Pol	1	MRGMLPLFEPKG	RVAT VDGHHLAVRTTHA
Bbu_Pol	1		MYINDALNIITRNMHVMKNY.
Eco_Pol	1	MVQIPQNI	TATIVDGSSYLVRAMHAF
Tca_Pol	1	MEAMLPLFEPKG	RVATUVDGHHLAXRTOFA
Bca_Pol	1		CEVERDESSVANRA FA
Tfi_Pol	1	MTPLFDLEEPPKI	WITTUDGHHLAYRT YA
Bst_Pol	1		Transfer SVANRA FA
Bst_PolA	1	MKKI	CTSUPEDGNSVANRAFA
Hin_Pol	1	MAQIATNI	DVINDLESSYLXRATHAF
Rpr_Pol	1	MTKKN	FTDEIDGYGFVFRARYA
Tfl_Pol	1	MAMLPLFEPKG	RMULVDGHHLANRTEFA
Hpy_Pol	1		TRADIDTFAYLERSXYMSAKN.
Tpa_Pol	1	MQEKK	IYIIDAYGLIYRSYHAFARA.
Bsu_Pol	1	MTERK	KIVEVDIENSLANRAFFA
Lla_Pol	1		REDEFEDGSSVALRARFAL, YNO
Tth_Pol	1	MEAMLPLFEPKG	RVHLVDGHHLAXRTDFA
Cla_Pol	1	MAYP	LIVLVDCHALAYRAIFAL.RE.
Cpn_Pol	1		KIFVEDASGFIFRAMFA
Mle_Pol	1	MSAAMTAEVCEDHTKP	ILMIIDICNSLAFRANYAL.PT.
Rhodothermus_Pol	1		RIYLIDAMALAYRAHYVF.IS.
Synechocystis_Pol	1	MFMSAKSP	LEDLVDICHSLAFRAMYAFGLSK
Bsu_exo	1		KINILVDGMALLFRAMFATAVHR
Mge_exo	1		KATLIDGNSLAYRAMFA. TWKQ
Т3_ехо	1	MALLDLKQFYELREGCDDK	GILVMDGDWLVEQAMSMAEFDA
Т4_ехо	1	MDLEMMLDEDYKE	GICITOFSQIALSTA
Т5_ехо	1	SKSWGKFIEEEEAEMASRR	NLMIVDGTNLGFR
т7_ехо	1	MALLDLKQFYELREGCDDK	GILVMDGDWLVFQAMSAAEFDA
Mpn_exo	1		NATHIDGNSLAYRAYFA. TWQQ
Mtb_exo	51	HPAPPRLRSPLDPTSGDPLHPAPPRLRS	PLVLEDGASMWFRSEFGVP
Eco_exo	1	MRGLFPISHPAVACSGIECYP	YRLIFK WIVAVHLLIVDALNL
hFEN-1	1	MGIQGLAKLIADVAPSAIRENDIKSYFG	RKVAIDASMSIYQFLIMVR.QG
MjFEN-1	. 1	MGVQ.FGDFIPKG	KKWAIDEMNALYOFLTSIRLRD
consensus	51		liing fr f a

		— — —
Spn_Pol	26	LDRFKNAACLHTN函题YGFQLM题SHL数ERVEPSHILVAF.DAGK
Aae Pol	20	LPPLSTSKEFPTNAL, YGFLRMEFSLEKKERPOYLVVVE.DAP.
	20	
Ctr_Pol	20	LPEMRGPNGESTON FGFTRS BALLSADUSTETVV
Ath_Pol	19	LPELTTSNNIPTNAMYGFVNVALKYMEQEKPDYVAVAN.DKRG
Dra Pol	30	LPPLNNSKEEMTDAMVGFMKLELRLAROKSNO.VIVVG.DPPV
Mth Pol	36	ENERTROPICEL TOWNED VOETAMETNLERDEAPTHIA
MCD_FOI		
Tag_Pol	30	LKGLTTSRGEPVQDWIGFAKSBLKASKEDG.DAVIVVI
Bbu Pol	24	PLLNTOGENVNAFIGFFKTAFFIAKEKNPEHLIITG.DSEV
FCO POI	26	PPT.TNSACEPTCOM VCVI.NMMRSI.MMOYKPTHAAVVD.DAKG
	20	THOLERON DIVOR YOR FORT TA STEDCYFAVE VVI NAVA
TCA_POI	30	LKGLTTSRCEPVQAMIGFARSULRAMELDGIRAVI
Bca_Pol	21	LPLLHNDKCIHTNNM YGFTMM WNKI WAEEEPTHML VAN DAGK
rfi Pol	30	L.SLTTSRCEPVOMMYGFARSELKANKEDG.OAVVVVG.DAKA
	21	THE LUNDERTHANDE VORTHANDING TO A THE MAGE
BSC_FOI	21	
Bst_PolA	21	LPLLHNDKCIHTNAMYGFTMMCNKIMAELQPTHLLVAH. MAGA
Hin Pol	26	.PSLTNAAGEPTS YGVLNM KSL SQVQPTHIA VVD.DAKG
Bpr Bol	23	OKSLSSAKGEPUGAN, YGFTSMELKLESDFKPOYVAIVD.DSG.
	20	
TII_POI	29	LKGLTTSKGLFVUM IGFAKSUNAAALDG DVVV
Hpy_Pol	32	.KPLTNDKCFPTGLZTGLVGMXKKFYKDRK.NMPFIVD.ALES
Tpa Pol	27	PLINDSCANVS MYGFFRSCHTLICHYRPRYFVAVC.DSLT
Rev Bol	22	LELLSNOV VARIAN VARANT MEMOREDERPTHML
Bau_FOI	23	
LIA_POI	27	LDRFKAPNELHTNAM FAFRTADSSLERKIQFTAVL IA.
Tth_Pol	30	LKGLTTSREEPVQTGYGFAKSELKAEKEDGYKAVFVVH.HAKA
ClaPol	2.5	SGLESSRGEPTYNM. FGFAOIWLTAWAEYRPDYAAVAD.DVG.
	20	IDENTRY OF COMPANY STREED WAT SUD
CDU_POT	20	
Mle_Pol	37	.ENFKTRGGLTTNAMYGFTAMMINLMREEAPTHIAAAG.OVSR
Rhodothermus Pol	23	.RPLVNSKCONTSAYGFTTSELKLEEHGMDYMAVVD.DAGG
Superhorystic Pol	31	KODLETTA TETSYC FORLNSEMOVERSOKPAATA IAH. DRRE
Synechocyscis_roi	21	
Bsu_exo	27	.NFMINDSGVPTNOMNGFLKHWITRWEIFOPTHVVCCM.MRGS
Mge_exo	24	VEYAKQNNLPFNNMA RTMLLMCWNLARANVYQYGIVSB.DTKA
T3 exo	42	SWEEETWHRCCDHAKAROILEDSEKSYETRKKAWV GAIVLAGTD
P 4 ana	20	
T4_exo	29	LVNFPDKEKINLSMWKHLILNSIKFNVKKAKILGIIKIVDEL
Т5_ежо	33	FKHNNSKKPFASSYVST QSLAKSYSARTTIVLG.DKGK
т7 ежо	42	SWEEEIWHRCCDHAKAROILEDSSKSYETRKKAWA GAIVLAGTD
Man evo	24	VEFAXLANI. DENNAM PTMLMMCWNLEOSKOVDYGV
MDN_SKO	4 4	
Mtb_exo	98	.SSITAPDERPVNOWRGFIDSMAVVBTQQRPNRLAVCLOLD
Eco_exo	44	IRRIHAVQESPCMETCQHAMDQLAMHSQPTHAVAVFDDEN
hFEN-1	5.0	GDVLONEEGETTSHEMGM, FYRTERMMENGIKPVYVFDGKPPQLKSGELA
	4.4	CONTRACTOR STOCK SYNCH SYNCHIELENDING TWIEDGEDDKLKEKTEK
MJFEN-I	44	GSPERNARGETTSMINGV.FIRIMALDETFINTPOGETTAN
consensus	101	gai 11 fa
Spn_Pol	68	
Spn_Pol Ase Pol	68 61	TTFRTEMYADYKGGRAKTPDEFREEFFFERELUDHM
Spn_Pol Aae_Pol	68 61	TTFRTEMYADYKGGRAKTPDEFRERFFFERELÖDHM .AKTKREKIYADYKKORPKAPDPLKVÖIPVÄKEIÄKLA DROGOFIYADYKOV
Spn_Pol Aae_Pol Ctr_Pol	68 61 62	TTFRTEMYADYKGGRAKTPDEFREGFPFERELEDHM .AKTKREKIYADYKKQRPKAPDPLKVEIPVDKEIUKLA .NKQSRQELYADYKSNRDRQLGBLPEFIRLWKQYCELL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol	68 61 62 61	TTFRTEMYADYKGGRAKTPDEFREDFPFERELDHM .AKTKREKIYADYKKQRPKAPDPLKVOIPVIKEIIKLA .NKQSRQELYADYKSNRDRQLGQLPEDIRLYKQYCELL REARKSEYEEYKANRKPMPDNLQVOIPYYREIIYAF
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol	68 61 62 61 71	TTFRTEMYADYKGGRAKTPDEFREEFFFERELDDHM .AKTKREKIYADYKKORPKAPDPLKVCIPVCKEICKLA .NKQSRQELYADYKSNRDRQLGQLPECIRLKKQYCELL .REARKSEYEEYKANRKPMPDNLQVCIPYYREITYAF .KTLRHEQYEGYKSGRAQTPEDLRGCINRTRALDAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol	68 61 62 61 71 77	TTFRTEMYADYKGGRAKTPDYFREGFPFFRELUDHM .AKTKREKIYADYKKQRPKAPDPLKVCIPVRKEIUKLA .NKQSRQELYADYKSNRDRQLGQLPEDIRLVKQYCELL .REARKSEYEEYKANRKPMPDNLQVCIPYREIIYAF .KTLRHEQYEGYKSGRAQTPEDLRGCINRTRALUDAL .OTFRLORYPEYKANRSSTPDFFAGCIDITKEVUGAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol	68 61 62 71 77	TTFETEMYADYKGGEAKTPDEFREEFFFERELIDHM AKTKREKIYADYKKORPKAPDFLKVOIPVNKEINKLA NKOSROELYADYKSNRDRQLGDLPEOIRLKKQYCELL .REARKSEYEEYKANRKPMPDNLQVOIPYNREINYAF .KTLRHEQYEGYKSGRAQTPENLRGTINRTALNDAL .QTFRLQRYPEYKANRSSTPDEFAGGIDITKEVYGAL PERFUTAVGCYAG
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol	68 61 61 71 77	TTFRTEMYADYKGGRAKTPDYFREFFFFRELDDHM AKTKREKIYADYKQRPKAPDPLKVCIPVOKEIJKLA NKQSRQELYADYKSNRDRQLGULPEDIRLYKQYCELL .REARKSEYEEYKANRKPMPDNLQVCIPYYREIJYAF .KTLEHEQYEGYKSGRAQTPEDLRGCINR RALYDAL .QTFRLQRYEYKANRSSTPDFFAGCIDITKEVIGAL .PSFRHEAYGGYKAGRAPTPEDFPRCLALKELYDLL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol	68 61 61 71 77 71 64	TTFRTEMYADYKGGRAKTPD FRE FPF RELUDHM AKTKREKIYADYKKQRPKAPDPLKV IPVIKEILKLA NKQS QELYADYKSNRDRQLG LPE IRLKKQYCELL .REARKSEYEEYKANRKPMPDNLQV IPYYREIIYAF .KTLRHEQYEGYKSGRAQTPENLRG CINRTRALDAL .QTFRLQRYPEYKANRSSTPD FAG CIDITKEVLGAL .PSFRHEAYGGYKAGRAPTPENFPR CLALKELYDLL .PTFRKQKYPSYKATRDLPPD LIPO IGWLKEGILKA
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol	68 61 61 71 77 64 67	TTFETEMYADYKGGEAKTPDEFREEFFFERELDHM AKTKREKIYADYKKORPKAPDPLKVOIPVIKEIIKLA NKQSRQELYADYKSNRDRQLGDLPEJIRLKKQYCELL .REARKSEYEEYKANRKPMPDNLQVOIPYREIIYAF .KTLRHEQYEGYKSGRAQTPEJLRGOINRERALDAL .QTFLQRYPEYKANRSSTPDEFAGOIDITKEVIGAL .PSFRHEAYGGYKAGRAPTPENFRCLALIKELJDLL .PTFRKQKYPSYKATRDLPPDDLIPOIGWIKEGILKA .KTFRDELFEHYKSHR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca Pol	681 661 771 667 72	TTFRTEMYADYKGGRAKTPDYFRESFPFERELODHM AKTKREKIYADYKKORPKAPDPLKVCIPVOKELODHM NKQSRQELYADYKSNRDRQLGULPEOIRLYKQYCELL .REARKSEYEEYKANRDRQLGULPEOIRLYKQYCEL .KTLEHEQYEGYKSGRAQTPEDLRGOINR RALYDAL .QTFRLQRYPEYKANRSSTPDFFAGCIDITKEVIGAL .PSFRHEAYGGYKAGRAPTPEDFPRCLALKELYDLL .PTFRKQKYPSYKATRDLPPDDLRACIEPILMK .KTFRDELFEHYKSHRPMMPDDLRACIEPILMMKAM .PSFRHEAYEAYKAGR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bos_Pol	68 61 62 61 71 71 64 67 57	TTFRTEMYADYKGGRAKTPDYFREGFPFIRELUDHM AKTKREKIYADYKKQRPKAPDPLKVIPVIKEIUKLA .NKQSRQELYADYKSNRDRQLGDLPEDIRLVKQYCELL .REARKSEYEEYKANRKPMPDNLQVJIPYYREIIYAF .KTLRHEQYEGYKSGRAQTPEDLRGGINNTRALUDAL .QTFRLQRYPEYKANRSSTPDFAGGIDITKEVUGAL .PSFRHEAYGGYKAGRSSTPDFFAGGIDITKEVUGAL .PTFRKQKYPSYKATRDLPPDJLIPOIGWUKEGULKA .KTFDELFEHYKSHRPPMPDDLRACIEPHAMYKAM .PSFRHEAYEAYKAGRAPTPEDFPRCLALIKELYDLL .TTPUHEAFDFYCGG
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Eca_Pol Bca_Pol	68 61 61 71 77 64 67 63	TTFETEMYADYKGGGAKTPDEFREEFPFERELDHM AKTKREKIYADYKKORPKAPDPLKVOIPVKEIIKLA NKQSRQELYADYKSNRDRQLGDLPEJIRLMKQYCELL .REARKSEYEEYKANRKPMPDNLQVOIPYKEIIYAF .KTLRHEQYEGYKSGRAQTPENLRGOINNR RALDAL .QTFLLQRYPEYKANRSSTPDEFAGCIDITKEVIGAL .PSFRHEAYGGYKAGRDLPPDILIPGIGWIKEGULKA .KTFRDELFEHYKSHRDLPPDILIPGIGWIKEGULKA .KTFRDELFEHYKSHRDLPPDILACIEPTHAMYKAM .PSFRHEAYEAYKAGRAPTPEDFPROLALIKELYDLL .TTFRHEAFQEYKGGR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol	68 61 61 71 71 64 72 67 63 70	TTFRTEMYADYKGGRAKTPDEFREEFFFERELODHM AKTKREKIYADYKKORPKAPDPLKVCIPVOKELIKLA NKQSRQELYADYKSNRDRQLGULPEOIRLYKQYCELL .REARKSEYEEYKANRRPMPDNLQVCIPYYREITYAF .KTLEHEQYEGYKSGRAQTPEDLRGCINR RALUDAL .QTFRLQRYPEYKANRSSTPDFFAGCIDITKEVIGAL .PSFRHEAYGGYKAGRAPTPEDFPRCLALKKELUDLL .PTFRQKYPSYKATRDLPPDDLIPFIGWKEGTLKA .KTFRDELFEHYKSHRPPMPDDLRACIEPFHAMKAM .PSFRHEAYEAYKAGRAPTPEDFPRCLALKKELUDLL .TTFRHEAFQEYKGGRAPTPEDFPRCLALKKELUDLL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol	68 61 61 71 71 64 67 72 70 63	TTFETEMYADYKGGEAKTPD FREEFFFERELIDHM AKTKREKIYADYKKORPKAPDFLKVOIPVIKEIIKLA NKQSRQELYADYKSNRDRQLGHLPEJIRLVKQYCELL .REARKSEYEEYKANRRAPPDNLQVOIPYYREIIYAF .KTLRHEQYEGYKSGRAQTPEJLRGTINKTRALHDAL .QTFELQRYPEYKANRSSTPDEFAGCIDITKEVIGAL .PFFRHEAYGGYKAGRAPTPEJFPRGLALKKELUDLL .PTFRKQKYPSYKATRDLPPDJLIFGIGWIKEGILKA .KTFRDELFEHYKSHRAPTPEDFPRCLALIKELUDLL .TTFRHEAYEAYKAGRAPTPEDFPRCLALIKELUDLL .TTFRHEAYEAYKAGRAPTPEDFPRCLALIKELUDLL .TTFRHEAYEAYKAGRAPTPEDFPRCLALIKELUDLL .TTFRHEAYEAYKAGRAPTPEDFPRCLALIKELYDLL .TTFRHEAYEAYKAGR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_PolA	68 61 61 771 67 67 63 63	TTFRTEMYADYKGGR AKTKREKIYADYKGGR NKQSRQELYADYKKQR KIA NKQSRQELYADYKSNR KTLRHEQYEGYKSGR QTFRLQRYPEYKANR SSTPDIFAGGIDITKEYIGAL PSFRHEAYGGYKAGR SSTPDIFAGGIDITKEYIGAL PFFRKQKYPSYKAGR SSTPDIFAGGIDITKEYIGAL PFFRKQKYPSYKAGR SSTPDIFAGGIDITKEYIGAL PFFRKQKYPSYKAGR STPDIFAGGIDITKEYIGAL SSTPDIFAGGIDITKEYIGAL NTFFRHEAYEAYKAGR SSTPDIFAGGIDITKEYIGAL SSTPDIFAGGIDITKEYIGAL SSTPDIFAGGIDITKEYIGAL SSTPDIFAGGIDITKEYIGAL SSTPDIFAGGIDITKEYIGAL STFRHEAYEAYKAGR SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGAL SSTPDIFAGIDITKEYIGGR SSTPDIFAGIDITKEYIGAL SSTPJDI
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_PolA Hin Pol	681 622 671 771 672 673 673 673 673 673	TTFRTEMYADYKGGR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Ann_Pol	6612 6612 77714 6723 673 673 673 673	TTFRTEMYADYKGGRAKTPDFFREGFPFRELIDHM AKTKREKIYADYKKQRPKAPDPLKVOIPVKEIIKLA NKQSRQELYADYKKQRDRQLGHLPEJIRLVKQYCELL REARKSEYEEYKANRDRQLGHLPEJIRGTINKKQYCELL .REARKSEYEEYKANRSSTPDFAGCIDITKEVGAL .QTFRLQRYPEYKANRSSTPDFFAGCIDITKEVGAL .PFFREAYGGYKAGRAPTPEUFPRCLALKKELUDLL .PFFRAYGGYKAGRDLPPDDLIFGIGWKKEGILKA .KTFRDELFEHYKSHRDLPPDDLIFGIGWKKEGILKA .STFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGRAPTPEUFPRCLALKKELUDLL .TTFRHEAYEAYKAGR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Dra_Pol Eco_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol	681 661 7771 667 633 667 633 667 64	. TTF TEMYADYKGGG
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tfl_Pol	6612 6617 7714 672 667 667 663 763 763 763 763 763 763 740	TTFRTEMYADYKGGR AKTKREKIYADYKGGR NKQSRQELYADYKKQR NKQSRQELYADYKSNR REARKSEYEEYKANR KEARKSEYEEYKANR KTFRLQRYPEYKANR SSTPDEFAGCIDITKEVIGAL PSFRHEAYEGYKSGR KTFRDELFEHYKSHR PSFRHEAYEAYKAGR PSFRHEAYEAYKAGR PSFRHEAYEAYKAGR PSFRHEAYEAYKAGR PSFRHEAYEAYKAGR SSTPDEFRCLALLKELYDLL TTFRHEAFQEYKGGR QCTPPLSECFPLIRELIRAY PSFRHEAYEAYKAGR APTPEDFPRCLALLKELYDLL TTFRHEAFQEYKGGR QCTPPLSECFPLIRELIRAY NFFRDELFEHYKGR SR CQTPPLSECFPLIRELIKAY SKTFRDELFELYKGGR SC CQTPPLSECFPLIRELIKAY SKTFRDEMFEQYKGR SR SFRHEAYEAYKAGR SF SFRHEAYEAYKAGR SF SF DEMFEQYKGR SR SF SF DEMFEQYKGR SR SF SF DEMFEQYKARR SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF DEMFE SF SF SF DEMFE SF SF SF DEMFE SF SF SF DEMFE SF SF SF DEMFE SF SF SF SF SF SF SF SF SF SF SF SF SF
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Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Tfl_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T5_exo T7_exo	666677776676766677766676778668778668316	TTFRTEMYADYKGGR. AKTPD FRE FPF RELIDHM AKTKREKIYADYKKOR. PKAPDPLKV TPV KEIKKLA NKQSRQELYADYKSNR. DRQLGLPE IRLIKKQYCELL REARKSEYEEYKANR. KPMPDNLQV TPY REITYAF KTLRHEQYEGYKSGR. AQTPENLRQ TPY REITYAF KTLRHEQYEGYKARR. SSTPDEFAG TINTKEYKGAL PSFRHEAYGGYKAGR. APTPEN FPR LALIKELYDLL PSFRHEAYGGYKAGR. APTPEN FPR LALIKELYDLL PSFRHEAYGGYKAGR. APTPEN FPR LALIKELYDLL PSFRHEAYEAYKAGR. APTPEN FPR LALIKELYDLL TTFRHEAYEAYKAGR. APTPEN FPR LALIKELYDLL TTFRHETFQUYKGGR. QQTPP LSE FPL RELLKAY PSFRHEAYEAYKAGR. APTPEN FPR LALIKKLYDLL TTFRHETFQUYKGGR. QQTPP LSE FPL RELLKAY TFRNETFQUYKGGR. QQTPP LSE FPL RELLKAY TFRHETFQUYKGGR. QTFP LSE FPL RELLKAY TFRHETFQUYKGGR. QTFP LSE FPL RELLKAY TFRNETFDYKKAGR.
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Bsu_Pol Bsu_Pol Bsu_Pol Bsu_Pol Synechocystis_Pol Bsu_exo T3_exo T4_exo T5_exo T7_exo Mpn_exo	6666777766767666777666776676766877866877866877866877866	TTFRTEMYADYKGGR. AKTPD FREGFPF RELIDHM AKTKREKIYADYKKOR. PKAPDPLKV IPV KEIKKLA .NKQSRQELYADYKSNR. DRQLGHLPE IRL KQYCELL .REARKSEYEEYKANR. KPMPDNLQV IPY REIYAF .KTLRHEQYEGYKSGR. AQTPENLRG INR KRALDAL .QTFRLQRYPEYKANR. SSTPDFFAG IDITKEV.GAL .PSFRHEAYGGYKAGR. APTPENFR CLALKELDLL .PFRKQKYPSYKARR. DLPPDULTP IGM KEGUKA .KTFRDELFEHYKSHR. PPMPDILRACIEF INAKAM .PSFRHEAYEAYKAGR. APTPENFR LALKELDLL .TTFRHEAFQEYKGGR. QQTPFLSE FPLKELKAY .PSFRHEAYEAYKAGR. APTPENFR LALKKELDLL .TTFRHEFQEYKGGR. QQTPFLSE FPLKELKAY .PSFRHEAYEAYKAGR. APTPENFR LALKKELDLL .TTFRHETFQEYKGGR. QQTPFLSE FPLKRELKAY .KTFRDEMFEQYKSGR. APTPENFR LALKKELDLL .TTFRHETYQEYKGGR. QUTPFLSE FPLKRELKAY .KTFRDEMKEQYKSHR. PLPFR LALKKLUDLL .TTFRHETYQEYKGGR. QUTPFLSE FPLKRELKAY .TTFRHETYQEYKAGR. APTPENFR LALKKLUDAN .TTFRHETYQYKAGR. APTPENFR LALKLUDAN .TTFRHETYQYKAGR. APTPENFR LALKLUDAN .KTFRDEMFEQYKAGR. APTPENFR LALKLUDAN .KTFRDEMKEQ
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mpn_exo	66667776676766677666766766877868121171472303377402759252843866877868 1386687786877868778687786877868778687786	TTFRTEMYADYKGGR. AKTPD FRE FPF RELIDHM AKTKREKIYADYKKQR. PKAPDPLKV TPV KEIKKLA NKQSRQELYADYKSNR. DRQLGLPE IRLYKY TPV KEIKKLA KQSRQELYADYKSNR. DRQLGLPE IRLYKY TPV KEIKKLA KTRREYEYKANR. KPMPDNLQV TPY REITYAF KTLRHEQYEYKANR. STPDEFAG TINK KALDAL QTFRLQYFYYKARR. SSTPDEFAG TINK KALDAL QTFRLQYFYKARR. DLPPDILRG TINK KALDAL YFRDELFEHYKARR. DLPPDILIFG TGW KKGC KLA YFRDELFEHYKARR. DLPPDILRA TIEF HAMKAM YFRHEAYEAYKAGR. APTPE FPR LAL KELWDLL TFRHEAYEAYKAGR. APTPE FPR LAL KELWDLL TFRHEAYEAYKAGR. QQTPP LSE FPL RELKAY PSFRHEAYEAYKAGR. QQTPP LSE FPL RELKAY TFRHETYQ YKGR. QQTPP LSE FPL RELLKAY TFRHETYQ YKGR. QQTPP LSE FPL RELLKAY TFRHETYQ YKGR. QQTPP LSE FPL RELLKAY TFRHETYQ YKGR. QUTPP LSE FPL RELLKAY TFRHETYQ YKGR. QUTPP LSE FPL RELLKAY TFRDKYKYGR. QUTPP LSE FPL RELLKAY TFRNETYQ YKARR. QUTPP LSE FPL RELLKAY TFRNETYQ YKARR. QUTPP LSE FPL RELLKAY TFRNETYQ YKARR. Q
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Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo T7_exo Mpn_exo	6666777766767666776667766676766877868877868877868877868877886884 18812117114723033740275925284386683166884	TTFRTEMYADYKGGR AKTPDYFRESFPFRELLDHM AKTKREKIYADYKKQR PKAPDPLKVJIPVKEIJKLA NKQSRQELYADYKSNR DRQLGILPESIKVJIPVKEIJKLA NKQSRQELYADYKSNR DRQLGILPESIKVJIPVKEIJKLA NKQSRQELYADYKSNR DRQLGILPESIKVJIPVKEIJKLA NKQSRQELYADYKSNR DRQLGILPESIKVJIPVKEIJKLA NKQSRQELYADYKSNR DRQLGILPESIKVJIPVKEIJKLA NKTRHEYYEYKAN SSTPDFFAGOIDITKEVJGAL YTRLEYYKAN SSTPDFFAGOIDITKEVJGAL YTRKQKYPSYKAT DLPPDJLRACIEPHKSHK YFRDELFENYSKA APTPEDFFRGLALKELVDLL YFRHEAYEAYKAG APTPEDFFRCLALKELVDLL TTFRHETFQUYKGGR QQTPPLSEOFPLIRELKAY TTFRHETFQUYKGGR QQTPPLSEOFPLIRELKAY TTFRHETFQUYKGGR QQTPPLSEOFPLIRELKAY TTFRHETFQUYKGGR QQTPPLSEOFPLIRELUKAY TTFRHETFQUYKGGR QQTPPLSEOFPLIRELUKAY TTFRHETFQUYKAR CARAC KTFRDEMFEQYKSE PPMPDDIRKGILQPPLAKELYDLL TTFRHETFQUYKAR CARAC TTFRHETFQUYKAR CARAC TTFRHETFQUYKAR CARAC
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Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mpn_exo Mtb_exo Eco_exo hFEN-1 MjFEN-1	6666777766776766740277592528438666316684993 18993	TTFRTEMYADYKGG
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	5.0.4	
spn_Pol	104	GIRHIELAUIMADDIG CONTARCOG, ID II VOG SOLITIAT
Aae_Pol	98	GIPLLELPGYDADDWWWYYMAEKFSQKGFKWKWYWPDWDLLODV
Ctr Pol	99	GISCLEEKGVINDDIM SETKKAVADGFEKCECEADEDLLODV
Ath Bol	07	NT PTTPFCYPADDY AND WNOFKNTG LDWWTUGDEDTI.OUI.
ACH_POI		
Dra_Pol	107	GFPRLEEPGY BADD WRWWY RMAEGKG IE WRWY WSDRDAIODL
Mtb Pol	113	GITVLSEPGFEADDINE TQAENEGYRL VEGDRDALOLV
Tag Pol	107	GLARLEVPGYPADD ANALAKKAEKEG.YEAR LADEDLYOL
Dhu Dal	100	TT DIFFUENCENDD CONFERENCE VINCET SDEDLLOW
BDU_POI	TUO	
Eco_Pol	103	GLPLLAVSGV: ADD CANADA REAEKAGRPLLAS GORD MAOL
Tca Pol	108	GFTRLEVPGYDADD
Bas Pol	00	PT PAVELENVEADD RECEARARAEOEG, FREKET GDEDLTOLA
BCA_FOI	100	
TI1_POI	TOP	GLVRLEAPGISADD ARACKEREG REARDING DEFOID
Bst_Pol	99	RIPAYELDHY <mark>BADDH HANNA</mark> ARAEREGFA M K HIE G <u>DRU</u> LT <u>OM</u> A
Bst PolA	99	RIPAYELDHYDADD BERNARAEOEGFESKEISGDRDLTODA
Vin Bol	102	AT PLLUUPATEADDY ANALOASSLOK KILS GDROMAOLV
HTH_FOI	103	
Rpr_Pol	101	KLVIDEKUGADANDON SAGELALKIASPEGINERATINAS DE ALATAS DE ALATAS
Tfl_Pol	106	GLVRLEVPGFEADDAY CLEARAEKEGYEHRELEADRDLYOJL
Hov Pol	110	GFVCVEVNGF ADDIX AN ALSPYKTRAY KORDFNOLL
	102	GT TVLPHDGPEADD STRAKPYAAFH CHWWHTSDEDVLOLV
ipa_roi	101	
Bsu_Pol	101	OIREXELEOX HADDERCEDECKSAEKDGLEEKEBERGDEDCLIGHA
Lla Pol	105	GIRHYELANY MADD XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Tth Pol	108	GFTRLEVPGYEADDWIAREARKAEKEG.YEERELEADRDLYOUV
	101	NT DTYMANCY AND Y COMMAND AND AND AND AND AND AND AND AND AND
CIA_FOI	101	
Cpn_POL	99	GLXKEXKEXV DEADDARANGEA KKAREENYK EYHCEADKOLLOOT V
Mle_Pol	114	GITVFAEAGFEADDIAWWMTQAENEGYR望L錾V塑GDRDALQUV
Rhodothermus Pol	102	DIDEVIEEPGVDADDU ARRAEAHGIDEVEVEPDEDFLOUI
Gunachegustis D-1	100	
aynechocyscis_Pol	103	
Bsu_exo	104	GIMNIGFAGYBANDDCREERANDLFANEADETRVEGDEDLLODL
Mge exo	102	GFLVCEKDGFEADD 3 3 YANLFTKQEIT DY SDRDMLODV
113 AVA	123	REVOTREPMIL
	100	
T4_exo	143	
Т5_ежо	112	ELCKTTFPTFTIRGV <mark>MADDE</mark> ASYSVKLIGHLYDHEWSIETDGDWDTUL
т7 ехо	123	EFYCIREPML
Waa awa	102	
MDU_GYO	102	
Mtb_exo	188	GIAMAGAPGF <mark>BADD</mark> AGGELTATRERRDP
Eco_exo	122	GVPCWSTSGNBADDIA
hFEN-1	149	GIPYLDAPSPARASCAATVRAGKVYAAATEDMDCLTFG
MIPPN-1	143	
	201	
consensus	201	Eaddligtia I I S DKG QI
Spn_Pol	147	DEHTYWEISKKGVAEFEAFTPDYMMEEM.GTTPAQFIDLK
Spn_Pol Aae_Pol	147 141	DEHTVIEISKKGVAEFEAFTPDYMMEEM.GITPAQFIDLK SENVLIINP.MNDEVFTKERMIKKF.GUEPQKIPDYL
Spn_Pol Aae_Pol Ctr_Pol	147 141 142	DEHTVWEISKKGVAEFEAFTPDYMEEM.GUTPAQFIDLK SENVLVINP.MNDEVFTKERWIKKF.GVEPQKIPDYL SSRVSWFNPWKEQE.IQYNEWLSQF.GUPPEQIADYL
Spn_Pol Aae_Pol Ctr_Pol Ath Pol	147 141 142 140	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERWIKKF.GTEPQKIPDYL SSRVSWFNPWKEQE.IQYNEWLSQF.GTPPEQIADYL DKNVVWKIVSTKFDKTVEDLYTVENKEKY.GTWANQVPDYK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra Pol	147 141 142 140 150	DEHTVWEISKKGVAEFEAFTPDY MEEM.GUTPAQFIDLK SENVLWINP.MNDEVFTKERWIKKF.GVEPQKIPDYL SSRVSWFNPWKEQE.IQYNEWLSQF.GVPPEQIADYL DKNVVWKIVSTKFDKTVEDLYTVEN KEKY.GUWANQVPDYK DEHVKKINVDYR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol	147 141 142 140 150	DEHTVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLUINP.MNDEVFTKERVIKKF.GVEPQKIPDYL SSRVSYFNPWKEQE.IQYNEVLSQF.GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVENKEKY.GLWANQVPJYK DEHVKJINDFSLIGPAQYEEKY.GUTVRQWVDYR SDDWIY DEFCUSELTDEAWWEY
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol	147 141 142 140 150	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERWIKKF.GTEPQKIPDYL SSRVSYFNPWKEQE.IQYNEVLSQF.GTPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTWANQVPDYK DEHVKMIPKGVSELTRFTPEAVEKY.GTTPRQYPDFA
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol	147 141 142 140 150 156 150	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERLIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNEVLSQF.GYPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GYWANQVPDYK DEHVKIIANDFSLIGPAQZEEKY.GUTVRQVVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GUTPRQVPDFA SDRIHVLHPEGYLITPAWWEKY.GUTPRQWADYR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol	147 141 142 140 150 156 150 143	DEHTVIEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLUINP.MNDEVFTKERIIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNEILSQF.GVPPEQIADYL DKNVVKKIVSTKFDKTVEDLYTVENKKKY.GVANQVPDYK DEHVKUIANDFSLIGPAQEEKY.GUTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVVEKY.GUTPRQYPDFA SDRIHVLHPEGYLITPAWWEKY.GURPDQWADYR SEYVKLKIE.NNSFIEMDNEYTKKF.GYNSFQIKDYL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Tag_Pol Bbu_Pol Eco Pol	147 141 142 150 156 150 143 146	DEHTVWEISKKGVAEFEAFTPDYIMEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERWIKKF.GTEPQKIPDYL SSRVS.FNPWKEQE.IQYNEVLSQF.GTPPEQIADYL DKNVV.KIVSTKFDKTVEDLYTVEN.KEKY.GTWANQVPDYK DEHVKWIPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHVLHPEGYLITPAWWEKY.GTRPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GTNSFQIKDYL TPNITINTMTNTILGPENVNKY.GTNSFQIKDYL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol	147 141 142 140 150 156 150 143 146 151	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERLIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNEVLSQF.GYPPQQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GYWANQVPDYK DEHVKIIANDFSLIGPAQEEKY.GUTVRQVVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GUTPRQYPDFA SDRIHVLHPEGYLITPAWWEKY.GURPDQWADYR SEYVKILKIE.NNSFIEMDNEYTKKF.GUNSFQIKDYL TPNIT INTMTNTILGPEEVNKY.GUPPELIDFL SDRUVLHPEGHLITPEWWKY.GUPPELIDFL
Spn_Fol Aae_Pol Ctr_Fol Ath_Pol Dra_Fol Mtb_Fol Bbu_Fol Bbu_Pol Eco_Fol Tca_Fol	147 141 142 140 150 156 150 143 146 151	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLVINP.MNDEVFTKERHIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNEYLSQF.GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVENKKKY.GVANQVPDYK DEHVKIIANDFSLIGPAQUEEKY.GVTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GUTPRQYPDFA SDRIHLHPEGYLITPAWWEKY.GURPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GNSFQIKDYL TPNITTINTMTNTILGPEEVVNKY.GVPELIIDFL SDRVAVLHPEGHLITPEWWQKY.GVKPEQWVDFR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Tag_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol	147 141 142 140 150 156 150 143 146 151 142	DEHTYWEISKKGVAEFEAFTPDYIMEEM.GTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF.GTPAQFIDLK SSRVS WFNPWKEQE.IQYNELSQF.GTPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTVRQVPDYK DEHVKIIANDFSLIGPAQ EEKY.GTVRQVPDYK SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHLHPEGYLITPAWWEKY.GTRPDQWADYR SEYVKLKIE.NNSFIEMDNEYTKKF.GTNSFQIXDYL TPNITIINTMTNTILGPEYVKY.GTNSFQIIDFL SDRVALHPEGHLITPEWWQKY.GTKPEQWVDFR SPHVTYDITKKGITDIEPYTPEAVREKY.GUTPEQIVDLK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol	147 141 142 140 150 156 150 143 146 151 142 149	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLVINP.MNDEVFTKERIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNEVLSQF.GYPPQQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GYPAQQVPDYK DEHVKIIANDFSLIGPAQEKY.GTTVRQVVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHVLHPEGYLITPAWWEKY.GIRPDQWADYR SEYVKILKIE.NNSFIEMDNEYTKKF.GYNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GIPPELIIDFL SDRVAVLHPEGHLITPEWWWQKY.GIPPELIIDFL SDRVAVLHPEGHLITPEWWWQKY.GIPPELIVDFR
Spn_Fol Aae_Pol Ctr_Fol Ath_Pol Dra_Fol Mtb_Fol Bbu_Fol Bbu_Pol Eco_Fol Tca_Fol Bst_Fol Bst_Fol	147 141 142 140 150 156 150 143 146 151 142 149 142	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLTINP.MNDEVFTKERLIKKF.GVEPQKIPDVL SSRVS.FNPWKEQE.IQYNELSQF.GYPPQIADVL DKNVV KIVSTKFDKTVEDLYTVEN KEKY.GVPAQVPDYK DEHVKIIANDFSLIGPAQUEEKY.GVTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHLHPEGYLITPAW WEKY.GTRPDQ.WADYR SEYVKILKIE.NNSFIEMDNEYTKKF.GVNSFQIKDYL TPNITGINTMTNTILGPEEVNKY.GVPFELIDFL SDRVALLHPEGHLITPEW WQKY.GVPFELIDFL SPNVTVDITKKGITDIEPYTPEAVEKY.GVPFER.WVDFR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_PolA	147 141 142 150 156 150 143 146 151 142 149 142	DEHTYWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLTINP.MNDEVFTKER IKKF. GTEPAQFIDLK SSRVS FFNPWKEQE.IQYNELSQF. GTPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GWANQVPDYK DEHVKTIANDFSLIGPAQ EEKY. GTTVRQWVDYR SDDVTTLYPRKGVSELTRFTPEAVEKY. GTTPRQYPDFA SDRIHLHPEGYLITPAWWEKY. GTRPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF. GWSFQIXDYL TPNITINTMTNTILGPEY VKKY. GYPPELIIDFL SDRVALHPEGHLITPEW WQKY. GTKPEQWVDFR SPHVTYDITKKGITDIEPYTPEAVEKY. GYPPERWVDFR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol A tip Pol	147 141 142 140 150 156 150 143 145 142 142 142 142	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF.GTPPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GTPPQQ.IADYL DKNVV.KIVSTKFDKTVEDLYTVEN KKKY.GTWANQVPDYK DEHVKIANDFSLIGPAQ EEKY.GTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHLHPEGYLITPAW WEKY.GTPPQQ.WADYR SEYVKLKIE.NNSFIEMDNEY TKKF.GYNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GTRPDQ.WADYR SPVVKLHPEGHLITPEW WQKY.GTKFEQ.WVDFR SPVVKLHPEGHLITPEW WQKY.GTKFEQ.IVDLK SEKVSYLLPDGTLVTPKDQEKY.GTPEQ.IVDLK SEKVSYLLPDGTLVTPKDQEKY.GTFEQ.IVDLK SRVVTDITKKGITDIESYTPET VEKY.GTTPEQ.IVDLK SRVVTDI
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Att_Pol Bst_PolA	147 141 142 1400 156 150 143 146 151 142 142 142	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLTINP.MNDEVFTKER IKKF.GVEPQKIPDVL SSRVS FNPWKEQE.IQYNEVLSQF.GYPPEQIADVL DKNVV KIVSTKFDKTVEDLYTVEN KEKY.GVPAQ.VPDYK DEHVKIIANDFSLIGPAQ EEKY.GVTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVVEKY.GTTPRQ.YPDFA SDRIHVLHPEGYLITPAW WEKY.GTRPDQ.WADYR SEYVKILKIE.NNSFIEMDNEY TKKF.GVNSFQIKDYL TPNITGINTMTNTILGPEEVNKY.GVPEL.IDFL SDRVAVLHPEGHLITPEW WQKY.GVPEL.IDFL SDRVAVLLPDGTLVTPKDVQEKY.GVPER.WVDFR SFLVTVDITKKGITDIESYTPETVEKY.GUTPEQ.IVDLK SRHVTVDINTMNNSLLDRKGVIEKY.GUTPEQ.IVDLK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Eco_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol	$147 \\ 141 \\ 142 \\ 140 \\ 1566 \\ 150 \\ 143 \\ 146 \\ 151 \\ 142 \\ 149 \\ 144$	DEHTYVEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLTINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVS FFNPWKEQE.IQYNELSQF. GTPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GVPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GUTVRQVPDYK DEHVK IANDFSLIGPAQ EEKY. GUTVRQWVDYR SDDVT LYPRKGVSELTRFTPEA VEKY. GUTPRQYPDFA SDRIH LHPEGYLITPAW WEKY. GUTPRQYPDFA SEYVKLLKIE.NNSFIEMDNEY TKKF. GUNSFQIXDYL TPNITINTMTNTILGPEY VKY. GUNFQLIIDFL SDRVALHPEGHLITPEW WQKY. GUKPEQWVD FR SPHVTYDITKKGITDIEPYTPEA REKY. GUTPEQIVDLK SEXVSVLLPDGTLVTPKD QEKY. GYPPERWVD FR SPQVTVEITKKGITDIEPYTPET VEKY. GUTPEQIVDLK SRHVTYDITKKGITDIEPYTPET VEKY. GUTPEQIVDLK SRHVTYDITKKGITDIEPYTPET VEKY. GUTPEQIVDLK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_PolA Hin_Pol Rpr_Pol Tf1_Pol	$147 \\ 141 \\ 142 \\ 150 \\ 156 \\ 143 \\ 146 \\ 142 \\ 142 \\ 142 \\ 142 \\ 144 \\ 149 \\ 142 \\ 146 \\ 149 \\ 142 \\ 146 \\ 149 \\ 140 \\ 149 \\ 140 $	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF.GVEPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GVWAQVPJYK DEHVKIANDFSLIGPAQEEKY.GTTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHVLHPEGYLITPAWWEKY.GURPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GVNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GVPELIIDFL SDRVAVLHPEGHLITPEWWKY.GUTPEQ.WVDFR SPHVTVDILPDGTLVTPKDVQEKY.GUTPEQ.IVDLK SEKVSVLLPDGTLVTPKDVQEKY.GUTPEQ.IVDLK SRVTVEINTKKGITDIESYTPETVEKY.GUTPEQ.IVDLK SRVTVDINTMNSLLDRKGVIEKY.GUTPEQ.IVDLK SKNIKTYDF.IKCKJITEDNVVKF.GTTPEQ.IVDLK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Bco_Pol Tca_Pol Bsta_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tf1_Pol Hpy Pol	$147 \\ 1442 \\ 1560 \\ 1560 \\ 1461 \\ 1461 \\ 1442 \\ 1442 \\ 1442 \\ 1446 \\ 1449 \\ 150 \\ 150 \\ 1450 \\ 1450 \\ 1450 \\ 150 \\ 1450 \\ 15$	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLTINP.MNDEVFTKER ILKKF. GTEPQKIPDYL SSRVS.FNPWKEQE.IQYNELLSQF. GTPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GTWANQVPDYK DEHVKTIANDFSLIGPAQ EEKY. GTTVRQWVDYR SDDVTLYPRKGVSELTRFTPEA VEKY. GTTPRQYPDFA SDRIHLHPEGYLITPAW WEKY. GTRPDQWADYR SEYVKLLKIE.NNSFIEMDNEY TKKF.GYNSFQIKDYL TPNITINTMTNTILGPEE VNKY.GYPPEL.IIDFL SDRVAVLHPEGHLITPEW WQKY.GIKPEQWVDFR SPHVT.DITKKGITDIEPYTPEA REKY.GTTPEQVDLK SEXVSVLLPDGTLVTPKD QEKY.GTFPEQIVDLK SRHVT.DITKKGITDIESYTPET VEKY.GITPEQIVDLK SRHVT.DINTMNNSLLDRKGVIEKY.GITPEQIVDLK SRHVT.DINTMNNSLLDRKGVIEKY.GITPEQIVDLK SERIAELHPEGYLITPAW VKKY.GTRPEQVV
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Hpy_Pol	$147 \\ 1440 \\ 1560 \\ 1440 \\ 1560 \\ 1440 \\ 1440 \\ 1440 \\ 1440 \\ 1440 \\ 1440 \\ 1440 \\ 1460 \\ 1$	DEHTYVEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLTINP.MNDEVFTKERIKKF. GTPPQKIPDYL SSRVS FFNPWKEQE.IQYNELLSQF. GVPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GVPPQVPDYK DEHVKTIANDFSLIGPAQ EEKY. GTTVRQVPDYK SDDVTLYPRKGVSELTRFTPEAVEKY. GTTPRQYPDFA SDRIHLHPEGYLITPAW WEKY. GTPPQVPDFA SDRIHLNTMTNTILGPEY VKKY. GTRPDQWADYR SEYVKILKIE.NNSFIEMDNEY TKKF. GVNSFQINJFL SDRVALHPEGHLITPEW WQKY. GTRPDQVDFR SPHVTVDILFKGITDIEPYTPEAVEKY. GTTPEQIVDLK SEVVSVLLPDGTLVTPKD QEKY. GYPPERWVDFR SPQVTVEITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDI
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tpa_Pol	$147 \\ 142 \\ 140 \\ 156 \\ 156 \\ 143 \\ 144 \\ 142 \\ 144 $	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLTINP.MNDEVFTKERIKKF.GTPPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GTPPQQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTVRQVPDYK DEHVKIIANDFSLIGPAQEEKY.GTTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHVLHPEGYLITPAWIWEKY.GTRPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GTNSFQIKDYL TPNITIINTMTNTILGPEY VKKY.GTPEL.IIDFL SDRVAVLHPEGHLITPEWIWKY.GTPEL.IIDFL SPAVALLPDGTLVTPKDQEKY.GTTPEQ.IVDLK SEKVSYLLPDGTLVTPKDQEKY.GTTPEQ.IVDLK SRVTVDITKKGITDIESYTPETVEKY.GTTPEQ.IVDLK SRVTVDINTMNNSLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDP.IKCKYITEDNVVKF.GTTPEQ.IVDLK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Bca_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Tf1_Pol Tp2_Pol Bsu_Pol	$\begin{array}{r} 147\\ 1442\\ 1560\\ 1560\\ 1461\\ 1442\\ 1440\\ 1442\\ $	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLVINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVS FNPWKEQE.IQYNELLSQF. GTPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GTWANQVPDYK DEHVK IANDFSLIGPAQ EEKY. GTVRQWVDYR SDDVTLYPRKGVSELTRFTPEA VEKY. GTTPRQYPDFA SDRIH LHPEGYLITPAW WEKY. GTPPQQYDFFA SEYVKLLKIE.NNSFIEMDNEYTKKF.GYNSFQIKDYL TPNITIINTMTNTILGPEE VNKY.GYPFLIDFL SDRVAVLHPEGHLITPEW WQKY.GTKPEQWVDFR SPHVTYDITKKGITDIEPYTPEA REKY.GTTPEQIVDLK SEXVVKILLPDGTLVTFKD QEKY.GYPERWVDFR SPQVTVEITKKGITDIEPYTPETVREKY.GTTPEQ.IVDLK SRHVTYDITKKGITDIEPYTPETVREKY.GTTPEQ.IVDLK SRHVTYDITKKGITDIEPYTPETVREKY.GTTPEQ.IVDLK SRHVTYDITKKGITDIEPYTPETVREKY.GTTPEQ.VVDK SRHVTYDIDF.IKCKVITEDNVVKF.GTTPDK.LRVM SERIALDF.IKCVITEDNVYKF.GTTPDK.LRVM
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bou_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tf1_Pol Hpy_Pol Bsu_Pol Esu_Pol Lla_Pol	$\begin{array}{r} 147\\ 1442\\ 1560\\ 1560\\ 1440\\ 1560\\ 1442\\ 1442\\ 1442\\ 1449\\ 1446\\ 150\\ 1446\\ 150\\ 1446\\ 150\\ 1440\\ 150\\ 140\\ 150\\ 140\\ 150\\ 140\\ 150\\ 140\\ 150\\ 150\\ 150\\ 150\\ 150\\ 150\\ 150\\ 15$	DEHTYVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF.GTPAQFIDLK SSRVS FNPWKEQE.IQYNELSQF.GVPPEQIPDYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTVRQVPDYK DEHVKIANDFSLIGPAQ EEKY.GTVRQVPDYK SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHVLHPEGYLITPAW WEKY.GTPPQVPDFA SDRIHVLNTMTNTILGPEAVEKY.GTPPQIXDYL TPNITIINTMTNTILGPEAVEKY.GTPPQIXDYL SDRVAVLHPEGHLITPEW WQKY.GTKPEQVVDFR SPVVTDILPDGTLVTPKD.QEKY.GTPEQIVDLK SEXVSVLLPDGTLVTPKD.QEKY.GTPEQIVDLK SKNIKTYDP.IKCKYITEDNVVKF.GTPPEL.IIDYL SKNIKTYDP.IKCKYITEDNVVKF.GTTPDK.LRVM SERIALLDFLCKYITEDNVVKF.GTTPDK.LRVM SERIALLDFLCKYITEDNVTKF.GTTPDK.LRVM SERIALLDGKTEFLAKGYQRW.TYMPTQ.LLDLF DDNTALDKKGITDVEFYTPETWEKY.GTTPEQIVDK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tpa_Pol Lla_Pol Tth_Pol	$\begin{array}{r} 141\\ 1440\\ 1560\\ 1440\\ 1560\\ 1440\\ 1440\\ 1440\\ 1440\\ 1440\\ 1440\\ 156\\ 1440\\ 156\\ 1450\\ 1450\\ 1551\\ 1551\\ 1450\\ 1551\\ 15$	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKERILKKF.GTPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GTPPQQ.IADYL DKNVV.KIVSTKFDKTVEDLYTVEN KEKY.GTVRQVPDYK DEHVKIANDFSLIGPAQEEKY.GTTRQVPDY SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQVPDFA SDRIHVLHPEGYLITPAWWEKY.GTPPQQ.WVDYR SEYVKLKIE.NNSFIEMDNEYTKKF.GTNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GTPEL.IIDFL SDRVAVLHPEGHLITPEWWKY.GTPEQ.WVDFR SPVVTVEITKKGITDIESYTPETVEKY.GTPEQ.IVDLK SEKVSVLNTMGITDIESYTPETVEKY.GTTPEQ.IVDLK SRVAVLNTMNSLLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITEDNVVKF.GTTPEQ.IVDLK SERIALNTMNSLLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITEDNVVKF.GTTPEQ.IVDLK SERIALNTMNSLLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITEDNVVKF.GTTPELIIDYL SKNIKTYDF.IKCKITEDNVVKF.GTTPEL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Bco_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Tf1_Pol Tf2_Pol Bsu_Pol Bsu_Pol Lla_Pol Cla_Pol	$\begin{array}{r} 141\\ 1440\\ 1556\\ 1542\\ 1440\\ 1556\\ 1461\\ 1442\\ 1442\\ 1440\\ 1440\\ 1440\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1554\\ 1555\\ $	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLVINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVS FNPWKEQE.IQYNELLSQF. GTPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GTWANQVPDYK DEHVKVIANDFSLIGPAQ EEKY. GTVRQWVDYR SDDVTLYPRKGVSELTRFTPEA VEKY. GTTPRQYPDFA SDRIH LHPEGYLITPAW WEKY. GTPPQQYADFA SDRIH LNTMTNTILGPEE VNKY. GTPPQQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF. GWNSFQIKDYL TPNITTINTMTNTILGPEE VNKY. GTPPELIIDFL SDRVAVLHPEGHLITPEW WQKY. GTKPEQWVDFR SPHVTXDITKKGITDIEPYTPEA REKY. GTTPEQIVDLK SEKVSVLLPDGTLVTFKD QEKY. GTPPEQIVDLK SKNIKGYDP.IKCKYITEDN VTKF. GTPPEL. IIDYL SKNIKGYDP.IKCKYITEDN VTKF. GTPPELIIDYL SKNIKGYDP.IKCKYITEDN VTKF. GTPPELIIDYL SKNIKGYDP.IKCKYITEDN VTKF. GTTPDKLRVM SERIALDFGTLITPAW YEKY. GTTPEQVVDK SDATAFL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tf1_Pol Bsu_Pol Lla_Pol Tth_Pol Cla_Pol Cnp_Pol	$\begin{array}{c} 141\\ 1440\\ 1556\\ 1546\\ 1544\\ 2426\\ 1544\\ 1544\\ 2426\\ 1449\\ 1544\\ 1554\\ 1544\\ 1554\\ 1544\\ 2544\\ 1554\\ 1544\\ 2544$ 2544\\ 2544 2544\\ 2544 2544 2554 2556	DEHTYVEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF. GTPPQKIPDYL SSRVS FNPWKEQE.IQYNELSQF. GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY. GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY. GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY. GVTVRQVPDYK SDDVTLYPRKGVSELTRFTPEAVEKY. GVTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVEKY. GVTVRQWVDYR SDRIHVLHPEGYLITPAW WEKY. GVPPQVDFA SDRIHVLNTMTNTILGPEAVEKY. GVPPELIDFL SDRVAVLHPEGHLITPEW WQKY. GVPPELIDFL SDRVAVLLPDGTLVTPKD QEKY. GVPPERWVDFR SPUVTVDITKKGITDIEPYTPEAVEKY. GVPPERWVDFR SPUVTVDITKKGITDIEPYTPETVEKY. GVPPERWVDFR SPUVTVDITKKGITDIEPYTPETVEKY. GVPPELIDYL SKNIKTYDP.IKCKYITEDNVVTKF. GTTPDKLRVM SERIALLDGKTEFLAKDCVEKY. GLPEQWVDYR SDRIAFFDGKTEFLAKDCVEKY. GLPSQFTDYQ CDTVQVLRLDIDHKWTCCDAAYQQRW.TVMPTQLLDFF SDRVAVLHPEGHLITPEW WEKY.GLTPEQID MK DGNTRVEISKKGVAEFEEFTPDYLLEKM.GITPSQFTDLK SDRVAVLHPEGHLITPEW WEKY.GLRPEQWVDFR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bsca_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tpa_Pol Lla_Pol Cth_Pol Cla_Pol Cpn_Pol	$\begin{array}{c} 1442\\ 1442\\ 1553\\ 1442\\ 1553\\ 1442\\ 1442\\ 1442\\ 1442\\ 1442\\ 1554\\ 1442\\ 1554\\ 1554\\ 111\\ 1554\\ 111\\ 144\\ 1554\\ 144\\ 1554\\ 111\\ 111$	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SERVLTINP.MNDEVFTKERIKKF.GTPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GTPPQIADYL DKNVV.KIVSTKFDKTVEDLYTVEN KEKY.GTVRQVPDYK DEHVKIANDFSLIGPAQEKY.GTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTTPRQYPDFA SDRIHLHPEGYLITPAWWEKY.GTPPQWADYR SEYVKLKIE.NNSFIEMDNEYTKKF.GTNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GTPEL.IIDFL SDRVAVLHPEGHLITPEWWKY.GTPEQ.WVDFR SPVVTVEILPDGTLVTPKDQEKY.GTPEQ.IVDLK SEKVSVLNKKGITDIESYTPETVEKY.GTTPEQ.IVDLK SRVAVLNTMNNSLLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDP.IKCKYITEDNVVKF.GTTPEQ.IVDLK SERIALNTMNNSLDRKGVIEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITDIEYTPETVEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITDIEYTPETVEKY.GTPEL.IIDYL SKNIKTYDF.IKCKITDIEYTPETVEKY.GTPEQ.IVDLK SERIALNTMNNSLLDRKGVIEKY.GTPEQ.IVDLK SERIALDF.IKCKITEDNVVKF.GTTPEQ.IVDLK SERIAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tf1_Pol Rpr_Pol Tf1_Pol Tf2_Pol Bsu_Pol Lla_Pol Cla_Pol Cpn_Pol Mle_Pol	$\begin{array}{c} 141\\ 1440\\ 1556\\ 1542\\ 1546\\ 1544\\ 1440\\ 1566\\ 1544\\ 1442\\ 1442\\ 156\\ 1442\\ 156\\ 1442\\ 151\\ 1442\\ 151\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 157\\ 1442\\ 156\\ 157\\ 1442\\ 157\\ 147\\ 147\\ 147\\ 147\\ 147\\ 147\\ 147\\ 14$	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLVINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVS FNPWKEQE.IQYNELLSQF. GVPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GWANQVPDYK DEHVK IANDFSLIGPAQ EEKY. GTVRQWVDYR SDDVTLYPRKGVSELTRFTPEA VEKY. GTPRQYPDFA SDRIH LHPEGYLITPAW WEKY. GTPRQYDFFA SEYVKLLKIE.NNSFIEMDNEYTKKF. GWNSFQIKDYL TPNITIINTMTNTILGPEE VNKY. GPPELIIDFL SDRVAVLHPEGHLITPEW WQKY. GTKPEQWVDFR SPHVTVDITKKGITDIEPYTPEA REKY. GTTPEQIVDLK SEXVVKILLPDGTLVTPKD QEKY. GYPPERWVDFR SPQVTVEITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDIDFR.TDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK SRHVTVDITKKGITDIEPYTPETVEKY. GTTPEQIVDLK DDNIMIIDF.IKCKYITEDNVVTKF. GTTPDKLR VM SERIALDF.ICKYITEDNVTKF. GTTPDKLR VM SERIALDF.IKCKYITEDNVTKF. GTTPDKLR VM SERIALDF.IKCKYITEDNVTKF. GTTPDKLR VM SDKIALFDGKTEFLAKDCVEKY. GLTPEQ
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Bsu_Pol Lla_Pol Tth_Pol Cla_Pol Cpn_Pol Rhodothermus_Pol	$\begin{array}{c} 1442\\ 11440\\ 1556\\ 15445\\ 15445\\ 154464\\ 15444\\ 15544\\ 15544\\ 15544\\ 15544\\ 15544\\ 15544\\ 275\\ 1455\\ 1455\\ 145\\ 1554\\ 155\\ 145\\ 155\\ 145\\ 155\\ 145\\ 155\\ 15$	DEHTVVEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKERIKKF.GTPAQFIDLK SSRVS FNPWKEQE.IQYNELSQF.GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GVPPEQIADYK DEHVKIANDFSLIGPAQ EEKY.GVTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVWKY.GVPPQWADYR SDRIHLNFMTNTILGPEAVWKY.GVPPQVDFA SDRIHLNTMTNTILGPEYTKKF.GVNFYQ.IKDYL TPNITIINTKGITDIEPYTPEAREKY.GVPPELIDFL SDRVALLPDGTLVTPKDQEKY.GVPPEL.WVDFR SPVVTDITKKGITDIEPYTPEAREKY.GVPPEL.WVDFR SPVVTDITKKGITDIEPYTPETVEKY.GVPPER.WVDFR SRVVVDINTMNNSLLDRKGVIEKY.GVPPEL.IIDYL SKNIKYDP.IKCKYITEDNVVTKF.GTTPDQ.IVDLK SEKIALLDFGTLVTPKDYVEKY.GUPPEQ.WVDYR SERIALLDFJIDHKWTCCDAAYQQRW.TYMPTQ.LLDFF SKNIKYDFICKYITEDNVVTKF.GTTPDK.LRVM SERIALLDKKGITDIEPYTPEHKEKY.GILPSQ.FTDYQ CDTVQVLRLDIDHKWTCCDAAYQQRW.TYMPTQ.LLDFF SDRVALDKKGVAEFEEFTPDYLLEKM.GITPSQ.FIDLK SDRVAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Min_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tf2_Pol Lla_Pol Cla_Pol Cla_Pol Rhodothermus_Pol Synechocystis_Pol	$\begin{array}{c} 14420\\ 111115503\\ 125536\\ 111111111111111111111111111111111111$	DEHTVWEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLVINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVS.FNPWKEQE.IQYNELLSQF. GVPPEQIADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTVRQWVDYK DEHVKIIANDFSLIGPAQ EEKY.GTTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVKKY.GTTPRQYDFA SDRIHLHPEGYLITPAW WEKY.GTRPDQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GNSFQIKDYL TPNITIINTMTNTILGPEEVNKY.GTPPEQWVDFR SPKVTVDITKKGITDIEPYTPEAVKKY.GTPPEQWVDFR SPKVTVDITKKGITDIESYTPETVKKY.GTTPEQ.IVDLK SKKVSVLNTMMNSLLDRKGIEKY.GTFPEQ.IVDLK SKNIKYDP.IKCKVITEDNVVKK.GTPPEL.IIDYL SKNIKYDP.IKCKVITEDNVVKKY.GTPEQ.IVDLK SEXIAFFDKKGITDIESYTPETVKY.GTPEQ.IVDLK SKNIKYDP.IKCKVITEDNVVKK.GTPPEL.IIDYL SKNIKYDP.IKCKVITEDNVVKKY.GTFPEQ.IVDLK SEXIAFFDKKGITDVEFYTPETVKKY.GTTPEQVD SKNIKYNTMNNSLLDRKGIEKY.GTPEQVD SKNIKY
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Bsu_Pol Lla_Pol Cla_Pol Cla_Pol Cla_Pol Rhodothermus_Pol Synechocystis_Pol Bsu_exo	$\begin{array}{c} 1442\\ 111111111111111111111111111111111$	DEHTVWEISKKGVAEFEAFTPDY MEEM. GYTPAQFIDLK SENVLTINP.MNDEVFTKER IKKF. GYPPQIADYL SSRVS FNPWKEQE.IQYNEYLSQF. GYPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY. GWANQVPDYK DEHVK IANDFSLIGPAQ EEKY. GYTVRQWVDYR SDDVTLYPRKGVSELTRFTPEAVVEKY. GYTPRQYPDFA SDRIHLHPEGYLITPAW WEKY. GYPPQWADYR SEYVKLLKIE.NNSFIEMDNEY TKKF. GNNSFQKDYL TPNITINTMTNTILGPEEVVKY. GYPPELIDFL SDRVALHPEGHLITPEW WQKY. GKPEQWVDFR SPHVTDITKKGITDIEPYTPEAVREKY. GYTPEQIVDLK SEKVSMLLPDGTLVTFKD QEKY. GYPPELIDFL SRWYDITKKGITDIEPYTPET VEKY. GYPPELIDFL SRWYDINTMNNSLLDRKGVIEKY. GYPPELIDYL SKNIKGYDF.IKCKYITEDN VTKF. GTPEQVDLK SEKVSMLDF.IKCKYITEDN VTKF. GTPEQVDLK SENIATINTMNNSLLDRKGVIEKY. GYPPELIDYL SNIATFDF.IKCKYITEDN VTKF. GTPEQVDLK SDRIAT
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Ahin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Bsu_Pol Lla_Pol Cla_Pol Cla_Pol Ch_Pol Rhodothermus_Pol Synechocystis_Pol Bsu_exo	$\begin{array}{c} 14420\\ 111111111111111111111111111111111111$	DEHTVWEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLINP.MNDEVFTKER IKKF.GTPAQFIDLK SSRVSJFNPWKEQE.IQYNELSQF.GTPPQQ.IADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GWANQ.VPDYK DEHVKIANDFSLIGPAQ EEKY.GTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVEKY.GTPRQ.YPDFA SDRIHLHPEGYLITPAW WEKY.GTPRQ.WADYR SEYVKLKIE.NNSFIEMDNEY TKKF.GNSFQ.IKDYL TPNITIINTMTNTILGPEEVNKY.GYPPEL.IIDFL SDRVAVLLPDGTLVTPKDQEKY.GTPEQ.IVDLK SEVVKULPDGTLVTPKDQEKY.GTPEQ.IVDLK SRVYDITKKGITDIEPYTPETYREKY.GTPEQ.IVDLK SRVYDINTMNNSLLDRKGVIEKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTTPLL.IIDFL SDRVAVLDPGTLVTPFTYREKY.GTPEQ.IVDLK SRVYDITKKGITDIEPYTPETYREKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTTPLL.IIDFL SDRVAVLNTMNNSLLDRKGVIEKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTTPLL.IIDFL SKNIKTYDP.IKCKYITEDNVTKF.GTTPLK.LRVM SERIAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Ath_Pol Rpr_Pol Tf1_Pol Tf1_Pol Cla_Pol Cla_Pol Cla_Pol Rbodothermus_Pol Synechocystis_Pol Bsu_exo Mge_exo	$\begin{array}{c} 14420\\ 111115543612\\ 11111111111111111111111111111111111$	DEHTVUEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLIINP.MNDEVFTKER IKKF. GTEPQKIPDYL SSRVSFNPWKEQE.IQYNEILSQF.GTPPQQ.IADYL DKNVVKIVSTKFDKTVEDLYTVEN KEKY.GTVRQWVDYR DEHVKIIANDFSLIGPAQUEEKY.GTVRQ.WVDYR SDDVTLYPRKGVSELTRFTPEAVVEKY.GTPRQ.YPDFA SDRIHLHPEGYLITPAWWEKY.GTRPQQ.WADYR SEYVKLKIE.NNSFIEMDNEYTKKF.GNSFQ.IKDYL TPNITIINTMTNTILGPEEVVNKY.GYPPEL.IIDFL SDRVAVLHPEGHLITPEWWQKY.GYPPEL.IIDFL SEKVSLLPDGTLVTPKDVGEKY.GTPEQ.IVDLK SEKVSLLPDGTLVTPKDVGEKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.VVDYR SEXIAFDGKTEFLAKDYYEKY.GIPPEL.IIDFL DDNIMIINTMNNSLLDRKGVIEKY.GIPPEL.IIDFL NTRVAVDNTKGITDIEYTPETVEKY.GIPPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTTPDK.LRVM SERIAFLDGKTEFLAKDCVEKY.GIPPEL.IIDFL NDYYGL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Bsu_Pol Lla_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo	$\begin{array}{c} \textbf{14420}\\ 111111111111111111111111111111111111$	DEHTVYEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLINP.MNDEVFTKERIKKF.GTTPAQ.FIDLK SSRVS.FNPWKEQE.IQYNELSQF.GTPPEQ.IADYL DKNVVKIV.STKFDKTVEDLYTVEN KEKY.GTVRQ.WVDYR DEHVKIIANDFSLIGPAQEEKY.GTVRQ.WVDYR SDDVTLY.PRKGVSELTRFTPEAVVEKY.GTRPQ.WVDYR SDRIHLHPEGYLITPAWWEKY.GTRPDQ.WADYR SEVVKIL.KIE.NNSFIEMDNEYTKKF.GNSFQ.IKDYL TPNITIINTMTNTILGPEEVNKY.GTPPEL.IIDFL SDRVAML.LENGITDIEPYTPEAVEKY.GTPEQ.WVDFR SPVTVDI.TKKGITDIEPYTPEAVEKY.GTPEQ.IVDLK SEKVSVLLPDGTLVTFKDQEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDIEPYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDVEFYTPETVEKY.GTPEQ.IVDLK SRHVT.DI.TKKGITDVEFYTPETVEKY.GTPEQ.IVDLK SRNALFDFPELAKDCVEKY.GTPEQ.WVDFR NDHVWAA.NPYGGKTSVTLYDLEQVKKY.GTPEQ.ILDK SDRVAVLHPEGHLITPEWWEKY.GTPEQ.ILDMK SDRVAVL.NPYGGKTSVTLYDLEQVKKY.GTPEQ.WVDFR NDHVWAA.NNPWADQGVVGISEVIERY.GTPEQ.IVDLK SNDVTYLY.PRKGVSELTRFTPEAVIEKY.GTPAQ.YPDLA S.PRISIY.KPARGETFDLITIETFRETY.GTPAQ.YPDLA S.PRISIY.KPARGETFDLITIETFRETY.GTPAQ.YPDLA S.PRISIY.KPARGETFDLITIETFRETY.GTPAQ.IVDFK NAFTVFLCIKGTKEMVMYNNEFFYEE.TCVMPKA.LIDIK NAFTVFLCIKGTKEMVMYNNEFFYEE.TCVMPKA.LIDIK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Min_Pol Tf1_Pol Hpy_Pol Tf2_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	DEHTVIEISKKGVAEFEAFTPDY MEEM.GTTPAQFIDLK SENVLIINP.MNDEVFTKER IKKF.GEPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GPPEQIADYL DKNVV KIVSTKFDKTVEDLYTVEN KEKY.GVWANQVPDYK DEHVKIIANDFSLIGPAQ EEKY.GTVRQ.WVDYR SDDVTILYPRKGVSELTRFTPEAVEKY.GTPRQ.WVDYR SDRTHLHPEGYLITPAW WEKY.GPPEL.IIDFL SDRVALHPEGYLITPAW WEKY.GPPEL.IIDFL SDRVALHPEGHLITPEW WQKY.GPPEL.IIDFL SDRVALHPEGHLITPEW WQKY.GPPEL.IIDFL SDRVALHPEGHLITPEW WQKY.GPPEL.IIDFL SDRVALHPEGHLITPEW WQKY.GTPEQ.IVDLK SEKVSLLPDGTLVTPKDVQEKY.GTPEQ.IVDLK SEKVSLLPDGTLVTPKDVQEKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.IVDLK SCRIALFDPGKLTPAW YEKY.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.IVDLK SKNIKTYDP.IKCKYITEDNVTKF.GTPEQ.IVDLK SDRVAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Tf1_Pol Tf1_Pol Tf1_Pol Tf2_Pol Tf2_Pol Tf2_Pol Bsu_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T5 exo	$\begin{array}{c} 1442006036129246490640014275265720\\ 111111111111111111111111111111111111$	DEHTVIEI. SKKGVAEFEAFTPDY MEEM. GTTPAQ. FIDLK SENVLJI. NP.MNDEVFTKER IKKF. GTPQK. IPDYL SSRVS.F. NPWKEQE.IQYNE.LSQF. GTPPQQ. IADYL DKNVVKKIV. STKFDKTVEDLYTVEN KEKY. GTPRQQ. VPDYK DEHVKII. ANDFSLIGPAQ EEKY. GTVRQQ. WVDYR SDDVTLY. PRKGVSELTRFTPEAVEKY. GTPRQQ. VPDFA SDRIHL. HPEGYLITPAW WEKY. GTRPDQ. WADYR SEYVKIL. KIE.NNSFIEMDNEY TKKF. GNSFQ. IKDYL TPNITI. NTMTNTLGPEV VNKY. GTPRQQ. VVDFR SPRVTDI. TKKGITDIEPYTPEAVEKY. GTPPQQ. IVDFR SPRVTDI. TKKGITDIEPYTPEAVEKY. GTPPQQ. IVDFR SPRVTDI. TKKGITDIEPYTPEAVEKY. GTPPQQ. IVDLK SKVSML. LPDGTLVTPKDVQKY. GTPEQ. IVDLK SKVSML. LPDGTLVTPKDVQKY. GTPEQ. IVDLK SKVSML. LPDGTLVTPKDVQKY. GTPEQ. IVDLK SKNIKTY. DP.IKCKYITEDNVVKF. GTPEQ. IVDLK SKNIKTY. DF.IKCGITDIEPYTPETVEKY. GTPEQ. IVDLK SEXISMI
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Bsu_Pol Lla_Pol Cla_Pol Cla_Pol Cla_Pol Bsu_Pol Bsu_Pol Bsu_Pol Bsu_Pol Synechocystis_Pol Bsu_exo T3_exo T4_exo T5_exo	$\begin{array}{c} 14420\\ 111111111111111111111111111111111111$	DEHTVVEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLIINP.MNDEVFTKERNIKKF.GEPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GPPEQIADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GVWANQVPDYK DEHVKNIANDFSLIGPAQUEEKY.GVTVQQWVDYR SDDVTLY.PRKGVSELTFTPEAVEKY.GTTPQQWADYR SDDVTLY.PRKGVSELTFTPEAVEKY.GTTPQQWADYR SEYVKLLKIE.NNSFIEMDNEYTKKF.GVNSFQKDYL TPNITINTMTNTILGPEEVVKY.GTFPQQWADYR SDRVAVLHPEGYLITPAW WEKY.GTKPQQWVDFR SPKVT.DITKKGITDIEPYTPEAVEKY.GTFPQQVDFK SFKVTVDITKKGITDIEPYTPEAVEKY.GTFPQQVVDFR SPKVTVDITKKGITDIESYTPETVEKY.GTFPQQVVDFR SRVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SRVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SPKVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SRVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SRVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SRVTVDITKKGITDIEYTPETVEKY.GTFPQQVVDFR SKNIKYDP.IKCKYITEDNVVKY.GTFPQQVDLK SKNIKYDP.IKCKYITEDNVVKY.GTFPQQVDLK SERIAFLHPEGYLITPAWIYEKY.GTRPEQWVDFR SDRIAFSKKGVAEFEEFTPDYLLEKM.GTFPQQLDLF NDHVVALA.NPYGGKTSVTLYDEQVRKTYGTFPQQLDLF NDHVVALA.NPYGGKTSVTLYDEQVRKTYGTEPPQLDLK SDRVAYLHPEGHLITPEWWEXY.GTRPEQVVDFR NDHVVALA.NPYGGKTSVTLYDLEQVRKTYGTEPPQQLDLK NDHVVAWNPWADQGVVGISEVIERY.GTPPQQLDLK NDHVVAWNPWADQGVVGISEVIERY.GTPPQQLDLK NDHVVAWNPWADQGVVGISEVIERY.GTPPQQLDLK NAFTNYLICIKGTKEWNYNNENFKSLFYGLEPPQQLDLK NAFTNYFLCIKGTKEWNYNNENFKSLFYGLAPQQVVFX NCDFLWCTGNILTQTKETADWWHLFQ
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Eco_Pol Tca_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Min_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tf2_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo	$\begin{array}{c} 144400603612992264906400142752657207\\ 111111111111111111111111111111111111$	DEHTVYEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLIINP.MNDEVFTKERIIKKF.GTPQKIPDYL SSRVS.FNPWKEQE.IQYNELSQF.GTPPQQ.IADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GTPPQQ.IADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GTPRQVPDYK DEHVKIIANDFSLIGPAQEEKY.GTTPQQVPDYK SDVTLYPRKGVSELTFTPEAVEKY.GTTPQQVPDFA SDRIHLHPEGYLITPAW WEKY.GTRPDQ.WADYR SEYVKLLKIE.NNSFIEMDNEY TKKF.GNSFQKDYL TPNITIINTMTNTILGPEEVVNKY.GTPPEQ.WVDFR SPRVTVDIHPEGHLITPEW WQKY.GIKPEQ.WVDFR SPRVTVDILPDGTLVTPKDVQEKY.GIKPEQ.IVDLK SEKVSWLLPDGTLVTPKDVQEKY.GITPEQ.IVDLK SRVVTVIINTMNNSLDRKGVIEKY.GITPEQ.IVDLK SKNIKGITDIEPYTPETVEKY.GITPEQ.IVDLK SRNVTVDITKKGITDIEPYTPETVEKY.GITPEQ.IVDLK SKNIKTY.DINTMNNSLDRKGVIEKY.GIFPEQ.WVDFR SPQUTVEIHPEGYLITPAWIYKF.GTPPEL.IIDYL SKNIKGIDGKTEFLAKDCVEKY.GILPSQ.FTDYQ CDTVQLRLDIDHKWTCCDAYVQQRW.TMPTQ.LLDLF NDHVIAINPYGGKTSVTLYDLQVRKY.GIPPEQ.WVDFR SDRVALHPEGYLITPAWIYEKY.GIPPEQ.WVDFR SDRVAL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Ath_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T7_exo Mpn_exo	$\begin{array}{c} 144400603612922649064001427526572075\\ 111111111111111111111111111111111111$	DEHTVVEISKKGVAEFEAFTPDY MEEM. GTTPAQFIDLK SENVLIINP.MNDEVFTKERNIKKF.GPQKIPDYL SSRVS.FNPWKEQE.IQYNEYLSQF.GYPPEQ.IADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GYPPEQ.IADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GYPPEQ.IADYL DKNVVKKIVSTKFDKTVEDLYTVEN KEKY.GYPPEQ.IADYK DEHVKMIANDFSLIGPAQUEEKY.GYTPRQVPDFA SDDVTLY.PRKGVSELTRFTPEAVVEKY.GYTPRQVDFA SDRIHLHPEGYLITPAW WEKY.GITPRQVDFA SDRYALHPEGYLITPAW WEKY.GYPPEL.IIDFL SDRVALLPDGTLYTFKDQEKY.GYPPEQ.IVDLK SEKVSVLLPDGTLYTFKDQEKY.GYPPER.WVDFR SPUVTVDITKKGITDIEYTPETVEKY.GYTPEQ.IVDLK SRHVTMDITKKGITDIEYTPETVEKY.GYTPEQ.IVDLK SRHVTMDITKKGITDIEYTPETVEKY.GITPEQ.IVDLK SRHVTMDITKKGITDIEYTPETVEKY.GITPEQ.IVDLK SRHVTMDITKKGITDIEYTPETVEKY.GITPEQ.IVDLK SRHVTMDINTMNNSLLDRKGVIEKY.GITPEQ.IVDLK SKNIKTY.D.D.KKKYITEDNVVKF.GTRPQ.WVDFR SPLIDINTMNNSLLDRKGVIEKY.GITPEQ.IVDLK SERIADLHPEGYLITPAWIYEKY.GITPEQ.IVDLK SRNIKTY.D.D.KKGVAEFEEFTPDYLEKW.GITPEQ.IVDLK SRNIKTY.D.P.KKKYITEDNVVKF.GITPEQ.IVDLK SDRIAJF
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Tfl_Pol Bsu_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo T3_exo T4_exo T5_exo Mpn_exo Mtb_exo	$\begin{array}{c} \textbf{14420} \textbf{60} \textbf{60} \textbf{129226} \textbf{4906401} 11111111111111111111111111111111111$	DEHTVVEI. SKKGVAEFEAFTPDY MEEM. GTTPAQ. FIJLK SENVLI. NP.MNDEVFTKER IKKF. GTPQK. IPDYL SSRVS F. NPWKEQE.IQYNEYLSQF. GPPEQ. IADYL DKNVV KIV. STKFDKTVEDLYTVEN KEKY. GWANQ. VPDYK DEHVKI. ANDFSLIGPAQUEEKY. GTTPRQ. YPDFA SDDVTLY. PRKGVSELTRFTPEAVVEKY. GTPRQ. WDYR SDDVTLY. PRKGVSELTRFTPEAVVEKY. GTPRQ. WDYR SEYVKI. KIE.NNSFIEMDNEYTKKF. SNSFQ. IKDYL SDRVAVL. HPEGYLITPAW WEKY. GTPPQ. WDYR SEYVKL. KIE.NNSFIEMDNEYTKKF. SNSFQ. IKDYL SDRVAVL. HPEGHLITPEW WQKY. GKFEQ. WVDFR SPHVTDI. TKKGITDIEPYTPEAVREKY. GTPPQ. IVDLK SEKVSML. LPDGTLVTPKDVQEKY. GTPEQ. IVDLK SRVVYDI. TKKGITDIESYTPETVVEKY. GTPEQ. IVDLK SRVVTDI. TKKGITDIESYTPETVVEKY. GTPEQ. IVDLK SRNVKY. DP.IKCKYITEDNVVKF. GTPPG. IVDLK SRNVKY. DP.IKCKYITEDNVVKF. GTPEQ. IVDLK SKNIKTY. DP.IKCKYITEDNVVKF. GTPEQ. VV SDDINMII. NTMNNSLDRKGVIEKY. GTPEQ. VV SKNIKTY. DF.IKCKYITEDNVKF. GTPEQ. VV SKNIKTY. DF.IKCKYITEDNVKF. GTPEQ. VV SDKIAFF. DGKTEFLAKDCVEKY. GTPEQ. VV SDKIAFF. HPEGYLITPAWIYEKY. GTREQ. VV SDKIAFF. DKKGVAEFEEFTPDYLIEKM. GTPEQ. IIDK SDRVAVL. HPEGHLITPEW WEKY. GTPEQ. IVDLK SDRVAVL. HPEGHLITPEW WEKY. GTPEQ. IVDK SDRVAVL. RLDIDHKWTCCDAAYWQQRW. TMPTQ. LLDLF TDKTTYAI. TRKGITDVEFYTPEHYKEKY. GTPEQ. IIDMK DGNTRVEI. SKKGVAEFEEFTPDYLIEKM. GTPEQ. IIDMK NDHVVAW. NFWADQGVVGISEVIENY. GTPEQ. IIDMK NDHVVAW. NFYGGKTSVTLYDLEQVRKRYDGIEPDQ. LADLR NDHVVAW. NFYGGKTSVTLYDLEQVRKRYDGIEPDQ. LADLR NDHVVAW. NFYGGKTSVTLYDLEQVRKRYDGIEPDQ. LADLR NDHVVAW. NFYGGKTSVTLYDLEQVRKRYDGIEPDQ. LADLR NAFTNVFL. CIKGTKEMVMYNNENFKSLFY. GLAPHQ. YPLA S.PRISIY. KPARRGETFDLITIETFRETY. GLAPHQ. YPLA NAFTNVFL. CIKGTKEMVMYNNENFKSLFY. GLAPYQ. VVEYK N. CDFLWCTTGNILTQ. TKEADWHLFQ
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Eco_Pol Tca_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tf1_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mtb_exo Eco_exo	$\begin{array}{c} 144400603612992264906400142752657207595\\ 11111111111111111111111111111111111$	DEHTVVEI. SKKGVAEFEAFTPDY MEEM. GTTPAQ. FIDLK SENVLTI. NP.MNDEVFTKERVIKKF. GTEPQK. IPDYL SSRVS F. NPWKEQE.IQYNEVLSQF. GTPPEQ. IADYL DKNVV KIV. STKFDKTVEDLYTVEN KEKY. GTWANQ. VPDYK DEHVKII. ANDFSLIGPAQ EEKY. GTVRQ. WVDYR SDDVTLY. PRKGVSELTRFTPEAVEKY. GTPRQ. WVDYR SDDVTLY. PRKGVSELTRFTPEAVEKY. GTPRQ. WADYR SEYVKL. KIE.NNSFIEMDNEYTKKF. SNSFQ. IKYYL TPNITII. NTMTNTIGPEEVVNKY. GTPEQ. WVDFR SPRVKUL. HPEGHLITPEWWQKY. GTPEQ. WVDFR SPRVTVDI. TKKGITDIEPYTPEAVREKY. GTPEQ. IVILK SEKVSVL. LDPGTLVTPKDVEKY. GTPEQ. IVILK SEKVSVL. LDPGTLVTPKDVEKY. GTPEQ. IVILK SEKVSVL. DPGTLVTPKDVEKY. GTPEQ. IVILK SEKVSVL. LDGTLVTPKDVEKY. GTPEQ. IVILK SEKVSVL. LDGTLVTPKDVEKY. GTPEQ. IVILK SRUTYDI. TKKGITDIEPYTPETVREKY. GTPEQ. IVILK SRUTYDI. TKKGITDIEPYTPETVREKY. GTPEQ. IVILK SKNIKTY. DP.IKCKYITEDNVVKF. GTPEQ. IVILK SKNIKTY. DF.IKCKJITEDNVVKF. GTPEQ. IVILK SKNIKTY. DF.KKGITDIEPYTPETVREKY. GTPEQ. IVILK SKNIKTY. DF.KKGITDIEPYTPETVREKY. GTPEQ. IVILK SKNIKTY. DF.KKGITDIEPYTPETVREKY. GTPEQ. IVILK SKNIKTY. DF.KKGITDIEPYTPETVREKY. GTPEQ. VVD SERIAIL HPEGYLITPAWIYEKY. GTPEQ. VVD SKNIKTY. DF.KKGITDVEFYTPEHVKEKY. GTPEQ. VVD SKNIKTY. DF.KKGITDVEFYTPEHVKEKY. GTPEQ. VVD SKNIKTY. DF.KKGITDVEFYTPEHVKEKY. GTPEQ. VVD SKNIKTY. DF.KKGITDVEFYTPEHVKEKY. GTPEQ. VVD SDRVAL. RLDIDHKWTCZDAAYQQRW. TMPTQ. LLDLF TDKTTVAI. TRKGITDVEFYTPEHVKEKY. GTPEQ. VVD SDRVALNPWADQGVVGISEVIERY. GTPEQ. IDMK DGNTRVEI. SKKGVAEFEEFTPDYLLEKM. GTPEQ. IDMK NDHVVAWNPWADQGVVGISEVIERY. GTPEQ. IDMK NDHVVAWNPWADQGVVGISEVIERY. GTPEQ. IVV SPEKNTSVLVLTRNPFSSNTGYDELDWGGVVDKM. GVTPAQ. IVV SPEKNTSVLVLTRNPFSSNTGYDELDWGGVVDKM. GVTPAQ. IVV SPEKNTSVLVLTRNPFSSNTGYDELDWGGVVDKM. GVTPAQ. IVV SPEKNTSVLVLTRNPFSSNTGYDELDWGGVVDKM. GVTPAQ. IVV SPEKNTSVLVLTRNPFSSNTGYDELDWGVVTKETFYEE.TGVMPKAL LDIN NAFTNVFL. CIKGTKEMVYNNENFKSLFYGLAPYQ. VVEYK NCDFLWCTTGNLTQ. TKETADWWHLFQ CDFLWCTTGNLTQ. TKETADWWHLFQ SMTSVWL. CVKGTKEKYNTDNFAEQFFGUTPKQ. VIEYK ADDVVVLYLG. RGLAKATLFGPAEVAERY. GLPAHRAGAAYALA
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol AHIN_POL Tfl_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mpn_exo Mtb_exo Eco_exo hFEN-1	$\begin{array}{c} 1 \\ 4 \\ 4 \\ 4 \\ 4 \\ 0 \\ 0 \\ 6 \\ 0 \\ 3 \\ 6 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1$	DEHTVVEI. SKKGVAEFEAFTPDY MEEM. GTTPAQ. FIJLK SENVLI. NP.MNDEVFTKERVIKKF. GTPAQ. FIJLK SSRVS F. NPWKEQE.IQYNEYLSQF.GTPPQ. IADYL DKNVV KIV. STKFDKTVEDLYTVENYKEKY.GTPPQ. IADYL DKNVVKI. STKFDKTVEDLYTVENYKEKY.GTPPQ. WVDYR SDDVTLY PRKGVSELTRFTPANVEKY.GTPPQ. WVDYR SDDVTLY PRKGVSELTRFTPANVEKY.GTPPQ. WVDYR SEVYKL. KIE.NNSFIEMDNEYTKKF.GNSFQ. KDYL TPNITI I. NTMTNTILGPENVNKY.GTPPEL. II SDRVAYL. HPEGHLITPEWIWQKY.GTPEQ. IV SPAVTDI. TKKGITDIEPYTPENYREKY.GTPEQ. IV SPAVTDI. TKKGITDIESYTPETVVEKY.GTPEQ. IV SPAVTYEI. TKKGITDIESYTPETVVEKY.GTPEQ. IV SRVVYEI. TKKGITDIEPYTPETYREKY.GTPEQ. IV SRVVYEI. SKKGVAEFEENVNY.GTPEQ. IV SRVVYEI. TKKGITDIEPYTPETYREKY.GTPEQ. IV SRVVYEI. SKKGVAEFEENVY SPAVTYEI. SKKGVAEFEENTPYVEKY.GTPEQ. IV SRVVYEI. SKKGITDIEPYTPETYREKY.GTPEQ. IV SRVVYEI. SKKGITDIEPYTPETYREKY.GTPEQ. IV SKNIKTY DP.IKCKYITEDNYVTKF.GTTPDK. LR VM SERIAEL HPEGYLITPAWIYKF.GTPEL. II SDRVAYL. NTMNNSLDRKGVIEKY.GTPEQ. VV SRVVYEI. SKKGVAEFEEFTPYYLEKY.GTPEQ. IV SKNIKTY. DP.IKCKYITEDNYVTKF.GTPDK. LR VM SERIAEL HPEGYLITPAWIYEKY.GTPEQ. VV SDRIALF. DGKTEFLAKDCVEKY.GTPEQ. VV SDRIALF. SKKGVAEFEEFTPYYLEKM.GTPEQ. IV SDRVAYL. HPEGHLITPEWIWEKY.GTPEQ. IV SDRVAYL. HPEGHLITPEWIWEKY.GTPEQ. IV SDRVAYL. HPEGHLITPEWIWEKY.GTPEQ. IV SDRVAYL. HPEGHLITPEWIWEKY.GTPEQ. IV SDRVAYL. HPEGHLITPEWIWEKY.GTPEQ. IV SDRVAYL. STARGETFDLITIETFRETY.GUEPQ. LL SNDVTVLY. PRKGVSELTRFTPEAMIEKY.GTPEQ. IV SDRVAYL. STARGETFDLITIETFRETY.GUEPQ. IV SDRVAYL. STARGETFDLITIETFRETY.GUEPQ. IV SDRVAYL. CIKGTKEWNYNNENFKSLFYGLAPYQ. VV SYK N. CDFLWCTTGNILTQ. TKERADWHLFQ SDRVAYL. CIKGTKEWNYNENFKSLFYGLAPYQ. VV SYK N. CDFLWCTTGNILTQ. TKERADWHLFQ SPTRAGNAGAYALA SPTLRKGNFG. SFTRREYHDDAFEQAERY.GUPARAALIDIK NAJTNYFL. CIKGTKEMKEYNTDNTAEQFFGUTPKQ. VY SYK N. CDFLWCTGNILTQ. TKESADWHLFQ SSMTSWUL. CVKGTKEMKEYNTDNTAEQFFGUTPKQ. VY SYK ADDPVPVRVLYLG. RGLAKATLFGPAEVAERY.GLAPAGAAYALA SPTLRKRNFL. CYASTAKEYNTDNTAEQFFGUTPKQ. VY SYVLWRHL. TASSAKKLPIOEHLSTIDEFLOEL.
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Rpr_Pol Tfl_Pol Bsu_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mpn_exo Mtb_exo Eco_exo hFEN_1	$\begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	DEHTVWEI. SKKGVAEFEAFTPDY MEEM. GTTPAQ. FIDLK SENVLTI. NP.MNDEVFTKERNIKKF, GTEPGK. IPDYL SKRVS FF. NPWKEQE.IQYNELLSQF.GTPFQ. IADYL DKNVV KIV. STKFDKTVEDLYTVEN KEKY.GTPRQ. VPDYK DEHVKTI. ANDFSLIGPAQ EEKY.GTTRQ. WDYR SDRIHL. HPEGYLITPAW WEKY.GTTPQ. VPDFA SDRIHL. HPEGYLITPAW WEKY.GTPPQ. VPDFA SDRIHL. HPEGYLITPAW WEKY.GTPPQ. VPDFA SEYVKIL. KIE.NNSFIEMDNEYTKKF.GTPGQ. WDYR SPUVTUJI. NTMTNTILGPEEWVNKY.GTPFQ. IKDYL SPUVTUJI. TKKGITDIEPYTPEWVWKY.GTPFQ. IVDLK SEKVSYL. LPDGTLVTPKDMQEKY.GTFFQ. IVDLK SEKVSYL. LPDGTLVTPKDMQEKY.GTFFQ. IVDLK SKVYNDI. TKKGITDIEPYTPETWVEKY.GTFFQ. IVDLK SKVYNDI. TKKGITDIEPYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIEPYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIEYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIEYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIESYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. SKGUTDIEYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIEYTPETWVEKY.GTFFQ. IVDLK NTMNNSLLDRKGVIEKY.GTFFQ. IVDLK SRUVTVDI. TKKGITDIEYTPETWVEKY.GTFFQ. IVDLK SRUVTVDI. SKGUAEFEEFTPDYLEKW.GTFFQ. IVDLK SRUVTVDI. SKGUAEFEEFTPDYLEKY.GTFFQ. IVDLK SERIAL. HPEGYLITPAWTKFF.GTTFDK. LRVM SERIAL. HPEGYLITPAWTYKF.GTFFQ. ILDLF SDRVAML. HPEGYLITPAWIYKY.GTFFQ. ILDLF NDKYMALA. NPYGGVSELTRFTFEAMIEKY.GTFFQ. VVFR NDHVVAW. NPWADQGVVGISEVIERY.GTFFQ. VVFR NDHVVAW. NPWADQGVVGISEVIERY.GTFFQ. VVFR NDHVVAW. NPWADQGVVGISEVIERY.GTFFQ. JPDL SPEKNISVLJLTRNPFSSNTGYDELDWQGWDKM.GVTFAQ. YPDLA S.PRISIY. KFARGETFDLITIETFRETY.GTFFQ. JPDL NDKVSGALL. QGGIGNKVYTKEFFYEE.TGVMFKA.LIDTK NAFTNYFL. CIKGTKEMVYNNNENFKSLFY.GAPYQ. VVFX N. CDFIWCTGNILTQ. TKETADWWHLFQ CDFIWCTGNILTQ. TEESADWWHLFQ DSMTSWL. CVGGTKEMKEYNTDNFAEQFFGUTFKQ. VIFX ADDPVPVRVLIG. RGLAKATLFGPAEVAERY.GUPARAGAAYALA SFTRREYPRIN. TASSAKKLYIQEFHLSRILQEL.GUPAQE.FVLC ADDPVPVRLAL. TASSAKKLYIQEFHLSRILQEL.GUPAGE.FVLC DFVLKAL. TASSAKKLYQEFFLSRILQE.GUPAGE.FVLC DFVLKAL. TASSAKKLYQEFFLSRILQEFLER.GUPAGE.FVLC DFVLKAL. TASSAKKLYQEFFLGEFLERSTLQEL.GUPAGE.FVLC
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Eco_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Min_Pol Rpr_Pol Tf1_Pol Hpy_Pol Tf1_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mtb_exo Eco_exo hFEN-1 MjFEN-1	$\begin{array}{c} \textbf{1444006036129922649064014275265720759571}\\ 111111111111111111111111111111111111$	DEHTYWEISKRGVAEFEAFTPDY MEEM. GYTPAQFIDLK SENVLYSKRGVAEFEAFTPDY MEEM. GYTPAQFIDLK SENVLYSKRGVAEFEAFTPDY MEEM. GYPAQIA YL DKNVV KIVSTKFDKTVEDLYTVENKKEKY. GYPAPQIA YL DKNVV KIVSTKFDKTVEDLYTVENKKEKY. GYPAPQVP YK SDDYTLYPRGGVSELTFFTPAWWEY. GYTPQVP FA SDRIHLNEFIEMDNEY TKKF. GYNSFQIX YL TFNTTINTMINILGPEEVNKY. GYPPELII DFL SDRVALNEBGYLITPAW WEXY. GYPPELII DFL SDRVALNEBGYLITPEW VKY. GYPPELII DFL SDRVAL

Spn_Pol	186	MGDKSDN APGUTKWGEKTGIKUMLEHGENGGIYENIDGMKT
Aae_Pol	176	LVGDKVDNWPGWEGWGPKTAINAWKKYGWENWLKNWEKF
Ctr_Pol	177	着 DVGDSSDN算PG%SGCGPKKNQAU 黛KEFQ %V系 EዿVANTERLSG
Ath_Pol	181	TVGDQSDN PGVKGEGEKSAQKIBEEYS EEEYQNLDKIKS
Dra_Pol	184	ALTGDASDNIPGAKGEGPRTAAKLEQEYGERKEYEAAHAGTLKP
Mtb_Pol	195	ALRGDPSDNIPGEPGYGERTAAKWAEYGURSDVDNVDAVR
Tag_Pol	184	AUTGDESDNDPGMKGRGEKTARKIDEEWGBMABLKNLDRLKP
Bbu_Pol	180	TVGDRSDN PG KGECAKGAANDEREFKERGEYSNLEIIN
Eco_Pol	181	NIMGDSSDNmpGMpGMgEKTAQADMQGLGGMTTHYAEPEKIA.GLSFRGA
Tca_Pol	185	LVGDPSDN PGKGGEKTALKIKEWGENNILKNLDRVKP
Bca_Pol	181	GIMCDKSDN PCSPC CENTAVKISRQFG NULASIDEIKG
Tfi_Pol	183	ALTCORSON PGMAGEGENTALRINAEWGEWNELKNLDRVKP
Bst_Pol	181	RIMCDKSDN PCMPC CENTAVKIIKOFGWANNLASIDEIKG
Bst_PolA	181	CIMCDKSDNSPCMPC CEKTAVKINKOFG VNMLA.SIDEVKG
Hin_Pol	181	ADMCIDSADNEPCTACTCEENTALGIEQGIGERAEEYANLEKVA.ELPIRGA
Rpr_Pol	179	
Tfl_Pol	183	THAC DPSD MBPC WKCICE KTAORIERE WG22ENEFQHLDQVKP
HDY_POI	183	
Tpa_Pol	184	
BSU_POI	100	
LIA_POL	105	
TEN_POL	105	
CIA_POI	170	
Vie Pol	106	
Mie_Poi Bhadatharmud Dol	104	ALMOND STANDARD ARA FURNING TO OVERAL AND FOUND
Supachogystic Pol	10%	ADACOPYCE CORPORTATION OF THE ADACATION OF
Pan PAC	195	
	185	
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T4 exo	193	THE CONTRACT OF THE OF MALE AND THE OF MALE AN
T5 exo	196	TEMEDLGDMARGWEGEGAGRGYNAMEREFGNALDAIDOLPLPGK
T7 exo	194	TEKGDITEDGYSCHAGWCD, TAEDFEN NPFITEPKTSVLKSGKNKG
Mpn exo	185	DIVEDNSDMETERKETEPKKGIDIEKOYGETDNEFANFDKLS
Mtb exo	275	LURGDPSDGEPCMPGVCEKTAATIBARHGSDDOGMAAADDRKTTMA
Eco exo	200	CHAGISSSKEPCHAGICPKSATOHEVEFOSDEGEYENLDAVA
hFEN-1	228	ILC. SDYCESERGIGPERAVDIDCKHKSTEEVRRLDPNKYPVPENWL
MjFEN-1	219	IFMG.TDYNPGCMKGIGFKRAYELWRSGVAKDVKKEVEY
CORGENER	301	
Compensas		al Gd sdni gv gvg k a ll sle i
Spn_Pol	229	al Gd sdni gv gvg k a ll sle i SKMKEN.ZINDKEQAFLSKT AT DTK.APIAIGLEDLVYSGPDV
Spn_Pol Aae_Pol	229 217	al Gd sdni gv gvg k a ll sle i SKMKEN.ZINDKEQAFLSKTMATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKMVKYYTD.LDIELSEEDLKIKRPDL
Spn_Pol Aae_Pol Ctr_Pol	229 217 220	al Gd sdni gv gvg k a ll sle i SKMKEN.ZINDKEQAFLSKT ATTDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKYYTD.LDIELSEEDLKIKRPDL KTK.QM.ZEDQKETLLLSKRTATEHMD.LAFPLTTEEFAFSPQAIDS
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol	229 217 220 224	al Gd sdni gv gvg k a ll sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKYYD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR ATHVCD.LPLNVKLEDLRTKEWNK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol	229 217 220 224 229	al Gd sdni gv gvg k a ll sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKDYTD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR AT HMD.LPLDVKLEDLRTKEWNK DGTRKK. HLDSEENVKFSHDLSCAVTD.LPLDVEFG.VRRLPDNP
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol	229 217 220 224 229 237	al Gd sdni gv gvg k a ll sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKDYTD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR ATHVCD.LPLNVKLEDLRTKEWNK DGTRKK. ELDSEENVKFSHDISC VTD.LPLDIEFG.VRRLPDNP GKVGDA. FRANLASVVRNRELTDUVRD.VPLAUFPDTLRLQPWDR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol	229 217 220 224 229 237 237	al Gd sdni gv gvg k a 11 sle i SKMKEN.HINDKEQAFLSKTMATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKHVKDYTD.LDIELSEEDLKIKRPDL KTK.QM.HEDQKETLLLSKRHAT HMD.LAFPLTTEEFAFSPQAIDS S.IREK.HEAGKDMAFLSKRLAT HVCD.LPLNVKLEDLRTKEWNK DGTRKK.HLDSEENVKFSHDLSCHVTD.LPLDIEFG.VRRLPDNP GKVGDA.HRANLASVVRNRELTDIVRD.VPLAQTPDTLRLQPWDR .AIREK.HLAHMDDLKLSWDLAKKRTD.LPLEVDFAKRREPDR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Tag_Pol Bbu_Pol Bco_Pol	229 217 220 224 229 237 227 227	al Gd sdni gv gvg k a 11 sle i SKMKEN.HINDKEQAFLSKTHATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKIYTD.LDIELSEEDLKIKRP.DL KTK.QM.HEDQKETLLLSKRHATHMD.LAFPLTTEEFAFSPQAIDS S.IREK.HEAGKDMAFLSKRHATVCD.LPLNVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA.FRANLASVVRNREITDVRD.VPLAQTPDTLRLQPW.DR .AIREK.HLAHMDDLKLSWDLAKYRTD.LPLEVDFA.KRREF.DR KKHREL.FIKEKENAFLSYEVSDEENLKIPEIENFALKNFS KTMAAK FEONFEVAVLSVONATTETDV
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Tag_Pol Bbu_Pol Eco_Pol Tca Pol	229 217 220 224 229 237 227 227 222 230 228	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT LATUDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKHYTD.LDIELSEEDLKIKRPDL KTK.QM. HEDQKETLLLSKRLATIHMD.LAFFLTTEEFAFSPQAIDS S.IREK. HEDGKEDMAFLSKRLATVCD.LPLNVKLEDLRTKEWNK DGTRKK. HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPDNP GKVGDA. GRANLASVVRNEHTDLVRD.VPLAQTPDTLRLQPWDR .AIREK. HLAHMDDLKLSWDLAKVRTD.LPLEVDFAKRREPDR KKHREL. HIKEKENAFLSYELVSIEENLKIFEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLATKTD.LPLEVDLAOGREPDR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol	229 217 220 224 229 237 227 222 230 228	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT AT DTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKIYTD.LDIELSEEDLKIKRPDL KTK.QM. HEDQKETLLLSKKTAT HMD.LAFPLTTEEFAFSPQAIDS S.IREK.HEAGKDMAFLSKRTAT HMD.LPLDVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCVVTD.LPLDIEFG.VRRLPD.NP GKVGDA.TRANLASVVRNREITDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL.HIKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK.HEQNKEVAYLSYQHATKKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSELSRKRTD.LPLEVDIAQGREP.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi Pol	229 217 220 224 229 237 227 222 230 228 228 225	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKIYTD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLLSKRLATHMD.LAFPLTTEEFAFSPQAIDS S.IREK.HEAGKDMAFLSKRLATHMD.LPLDVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCNVTD.LPLDIEFG.VRRLPD.NP GKVGDA.IRANLASVVRNRELTDUVRD.VPLQTPDTLRLQPW.DR AIREK.HAHNDDLKLSWDLAKYRTD.LPLEVDFA.KRREP.DR KKHREL.HIKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK.HEQNKEVAYLSYQLATIKTD.VELELTCEQLEVQQP.AA ENVREK.KAAHLEDLRLSLEJSRYRTD.LPLEVDFA.QREP.DR EKLKET.RQHREMALLSKKLAAJRRD.APVELSLDDIAYQGE.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bat_Pol	229 217 220 224 229 237 227 222 230 228 224 226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT LATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKDYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLLSKR LATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR LATHVCD.LPLDVKLEDLRTKEW.NK DGTRKK. LLDSEENVKFSHDLSCVVTD.LPLDVEFG.VRRLPD.NP GKVGDA. HRANLASVVRNRELTDUVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKWRTD.LPLEVDFA.KRREP.DR KKHREL. HIKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQHATKTD.VELELTCEQLEVQQP.AA ENVREK. KAHLEDLRLSLELSRWRTD.LPLEVDLAQGREP.DR EKLKET. HRQHREMALLSKKHAATRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLD AR RTD.LPLEVDFKALRRRTP.DL EKLKEN. FROYRDLALLSKOMAATCRD.APVELTLDDIVYKGE.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_PolA	229 217 220 224 229 237 227 222 230 228 224 226 224	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT MATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKDYTD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT HMD.LPLDIEFG.VRRLPD.NP GKVGDA. HANLASVVRNELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. HLAMMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL. HIKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQHAT KKD.VELELTCEQLEVQQP.AA ENVREK. KAHLEDLRLSLEISRWRTD.LPLEVDLA.QGREP.DR EKLKET. HRQHREMALLSKKLAATRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDIARTRTD.LPLEVDKALRRRTP.DL EKLKEN. KRQHRDLALLSKCLAATCRD.APVELSLDDIVYKGE.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Tag_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_PolA Hin_Pol	229 217 224 229 237 227 227 227 2230 228 224 226 224 224 226 224 226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT VCD.LPLVVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNRELTDVVRD.VPLAQTPDTLRLQPW.DR .AIREK. HAHMDDLKLSWDLAKYRTD.LPLEVDFA.KRREP.DR KKHREL. IKEKENAFLSYEIVSJEENLKIPEIENFALKNFS KTMAAK.HEQNKEVAYLSYQLATYKTD.VELELTCEQLEVQQF.AA ENVREK.KAHLEDLRLSLEJSRYRTD.LPLEVDFA.QGREP.DR EKLKET.RQHREMALLSKKLAAJRRD.APVELSLDDIAYQGE.DR DSLRRK.FEAHLEDLHLSLDLARTRTD.LPLEVDFKALRRRTP.DL EKLKEN.FQYRDLALLSKQLAAJCRD.APVELTLDDIVYKGE.DR EKLKEN.RQHRDLALLSKQLASJCCRD.APVELSLDDIVYEGQ.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol	229 217 224 229 237 227 222 238 224 226 224 224 224 224 222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF. PRAKKEDLELSYKLVKIYTD.LDIELSEEDLKIKRPDL KTK.QM. HEDQKETLLLSKR ATTHMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATTWCD.LPLNVKLEDLRTKEWNK DGTRKK. HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPDNP GKVGDA. RANLASVVRNRELTDVVRD.VPLAQTPDTLRLQPWDR .AIREK. HLAHMDDLKLSWDLAKWRTD.LPLEVDFAKRREF.DR KKHREL. TIKEKENAFLSYELVSJEENLKIPEIENFALKNFS KTMAAK. DEQNKEVAYLSYQLATKTD.LPLEVDFAQGREP.DR EKLKET.LRQHREMALLSKKHAA RRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDLAR RTD.LPLEVDFKALRRTPDL EKLKEN. GQYRDLALLSKQLAA CRD.APVELSLDDIVYKGE.DR EKLKEN. GQHRDLALLSKQLAS CRD.APVELSLDDIVYEGQ.DR KKLGEK. HLAEKNNADLSYTLATKKTD.VELNVTTDQLLLGES.QK KKLGEK. HLAEKNNADLSYTLATKKTD.VELNVTTDQLLLGES.QK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_Pol Ath_Pol Bst_Pol Bst_Pol Tfl_Pol	229 217 220 224 229 237 222 230 228 227 222 230 228 226 224 224 230 2224 2224 2226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT AT DTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKUYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEDGKETLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEDSEENVKFSHDLSCAVTD.LPLDVKLEDLRTKEW.NK DGTRKK. LLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNEH TD VRD.VPLAQTPDTLRLQPW.DR .AIREK. LLAHMDDLKLSWDLAKVRTD.LPLEVDFA.KRREP.DR KKHREL. HIKEKENAFLSYELVSIEENLKIFFEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLAT KTD.VELELTCEQLEVQQF.AA ENVREK.KAHLEDLRLSLELSKVRTD.LPLEVDLA.QGREP.DR KKKET. HRQHREMALLSKKIAA RRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDLAR RTD.LPLEVDFKALRRRTP.DL EKLKEN. HRQYRDLALLSKQLAA CRD.APVELSLDDIVYKGE.DR KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK IKQRKT. LQNAREAALISWKIGIDSN.VDLDFDLNNLKWSPP.NS
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Hpy_Pol	229 224 229 237 2224 237 2224 237 2224 230 228 224 224 224 2224 2224 2224 2224 22	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT AT DTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKHYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT VCD.LPLNVKLEDLRTKEW.NK DGTRKK. HLDSEENVKFSHDLSCVVTD.LPLDIEFG.VRRLPD.NP GKVGDA. GRANLASVVRNEHTDLVRD.VPLAQTPDTLRLQPW.DR .AIREK. HLAHMDDLKLSWDLAKVRTD.LPLEVDFA.KRREP.DR KKHREL. HIKEKENAFLSYELVSIEENLKIFEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLAT KTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEISKVRTD.LPLEVDLA.QGREP.DR KKHREL. GIKEKENAFLSKLAATRRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLD AR RTD.LPLEVDFKALRRRTP.DL EKLKET. KQYRDLALLSKQLAACCRD.APVELSLDDIVYKGE.DR KKLGEK. LAEKNNADLSYTLAT KTD.VELNVTTDQLLLGES.QK IKQRKT.LQAREAALISWKLIGIDSN.VDLDFDLNNLKWSPP.NS SLREK. QAGMEALALSKKISQUHTD.LPLEVDFG.RRRTP.NL PKMYRA. HHDKASAFLSKELATERG.CIKEFDFLSCAF.PSENPL
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tfl_Pol Hpy_Pol Tpa_Pol	229 227 220 224 229 237 222 230 228 224 226 224 224 2224 2224 2226 2229 226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKTLATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLLSKRLATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKRLATHVCD.LPLDVTKLEDLRTKEW.NK DGTRKK.LDSEENVKFSHDLSCVVTD.LPLDVEFG.VRRLPD.NP GKVGDA. HANLASVVRNRELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL.HIKEKENAFLSYELVSLEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLELSRVRTD.LPLEVDFA.QREP.DR EKLKET.HRQHREMALLSKKLAATRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLDLAKKRAATRD.APVELSLDDIAYQGE.DR KKLGEK.ILAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK KKLGEK.ILAEKNNADLSYTLATKTD.VELNVTTDQLLGES.QK KKLGEK.ILAEKNNADLSYTLATKTD.VDLDFDNNLKWSPP.NS .SLREK.QAGMEALALSKKLASKLGDSN.VDLDFLNNLKWSPP.NS .SLREK.QAGMEALALSKKLASHTLERG.CIKEFDFLSCAF.PSENLE
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Ath_Pol Rpr_Pol Tfl_Pol Hpy_Pol Tpa_Pol Bsu_Pol Bsu_Pol	229 217 224 229 237 222 230 228 224 226 224 226 226 226 226 226 226 226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKJYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR AT HMD.LPLDVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCVVTD.LPLDVEFG.VRRLPD.NP GKVGDA. RANLASVVRNELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. HAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL. IKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK. EQNKEVAYLSYQHATTKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEISR RTD.LPLEVDIAQGREP.DR EKLKET. URQHREMALLSKKLAATRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLD AR RTD.LPLEVDKALRRTP.DL EKLKEN. RQYRDLALLSKQLAA CCD.APVELSLDDIVYEGQ.DR KKLGEK. LAEKNNADLSYTLATIKTD.VELNVTTDQLLLGES.QK IKQRKT. QAMEAALISWKLIGIDSN.VDLDFDLNNLKWSPP.NS .SLREK.TQAGMEALALSKKLATIERG.CIKEFDFLSCAF.PSENPL EALRYS.YCGKKDAFFSRSLIELRDD.VPCVFSLEDSCCIPLDVTS KKLKEK.LEEFKDQALMSKELATIENTD.VPLEVSVSGLEYQGF.NR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol AHIN_POl Tfl_Pol Hpy_Pol Tpa_Pol Bsu_Pol Bsu_Pol Lla_Pol	229 217 224 229 237 227 227 227 227 227 227 227 227 227	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT MATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT HVCD.LPLVVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNRETTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. HAHMDDLKLSWDLAKARTD.LPLEVDFA.KRREP.DR KKHREL. IKEKENAFLSYETVSTEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLATKKD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEISRYRTD.LPLEVDFA.QGREP.DR EKLKET. RQHREMALLSKKLAATRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDIARTRTD.LPLEVDFKALRRRTP.DL EKLKEN. RQHRDLALLSKCLASTCRD.APVELSLDDIVYEGQ.DR KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK IKQRKT.JQNAREAALISWKIGIDSN.VDLDFDLNNLKWSPP.NS .SLREK.TQAGMEALALSKKLATTERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIELRDD.VPCVFSLEDSCCIPLDVTS KKKEK.LEEFKDQALMSKELATMTD.APLEVSVSGLEYQGF.NR SKMKDN.HIADKENAFLSQLATINTK.APLEIGLEDTLLKEK.NV
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Tfi_Pol Bst_Pol Bst_PolA Hin_Pol Rpr_Pol Tfl_Pol Hpy_Pol Bsu_Pol Esu_Pol Su_Pol Lla_Pol Tth_Pol	229 217 224 229 237 227 227 227 227 227 227 227 2224 2226 2224 2226 2226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKYVKJYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR AT HVCD.LPLVVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNELTDVVRD.VPLAQTPDTLRLQPW.DR .AIREK. HAHMDDLKLSWDLAKYRTD.LPLEVDFA.KRREP.DR KKHREL.TIKEKENAFLSYGLATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEJSRYRTD.LPLEVDFA.QGREP.DR EKLKET.RQHREMALLSKKLAAFRD.APVELSLDDIAYQGE.DR DSLRRK.FEAHLEDLHLSLDLAKYRTD.LPLEVDFALKRRTP.DL EKLKEN.FRQHRDLALLSKGLAAFRTD.APVELSLDDIVYEGQ.DR KKLGEK.ILAEKNNADLSYTATKTD.VELNVTTDQLLLGES.QK IKQRKT.QNAREAALISWKIGHDSN.VDLDFDLNNLKWSPP.NS .SLREK.TQAGMEALALSRKLSQYHTD.LPLEVDFG.RRRTP.NL PKMYRA.HIHDKASAFLSKELATHERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIELRDD.APVELSLDDICSCIPLDVTS KKLGEK.LEFKDQALMSKELATIMTD.APLEVSUGLEYGGF.NR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Tfl_Pol Hpy_Pol Tpa_Pol Bsu_Pol Lla_Pol Tth_Pol Cla_Pol	229 2217 2224 2229 2377 2222 2377 2222 238 2224 2224 2226 2226 2226 2226 2226 222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF. PRAKKEDLELSYKLVKLYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATHVCD.LPLVVKLEDLRTKEW.NK DGTRKK. HLDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNRELTDVVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKNRTD.LPLEVDFA.KRREF.DR KKHREL.TIKEKENAFLSYELVSJEENKIPEIENFALKNFS KTMAAK. EQNKEVAYLSYQLATKTD.LPLEVDFA.KRREF.DR EKLKET. LRQHREMALLSKK AA RRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLELSRVRTD.LPLEVDFA.LRRTP.DL EKLKEN. RQYRDLALLSKQLAA CCRD.APVELSLDDIVYEGE.DR KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK KKLGEK. LAEKNNADLSYTLATKTD.VDLDFDLNNLKWSPF.NS .SLREK. QAGMEALALSKKIGIDSN.VDLDFDLNNLKWSPF.NS .SLREK. VCGKKDAFFSRSIIE RDD.VPCVFSLEDSCCIPLDVTS KKLGEK.LIADKEAAFSRSIIE RDD.VPCVFSLEDSCCIPLDVTS KKLKEL DVCGKKDAFFSRSIIE RDD.VPCVFSLEDSCCIPLDVS KKLKEL KAHLEDLRLSLATMSKLATMTD.A.PLEVSUGGLEYQGF.NR SKKKDN.LIADKEMAFLSQUATINTK.A.PLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRLSLELSRVRTD.L.PLEVDLA.QGREP.DR KKLGEK.LEFKDQALMSKELATMERG.V.PCVFSLEDSCCIPLDVTS KKLKEL LEFKDQALMSKELATMERG.V.PCVFSLEDSCCIPLDVTS KKLKEL LEFKDQALMSKELATMERG.V.PCVFSLEDSCCIPLDVTS KKLKEL LEFKDQALMSKELATMETD.A.PLEIGLEDTLLKEK.NV ENVREK.KAHLEDIRLSLELSRVRTD.L.PLEVDLA.QGREP.DR KKKUN.LIADKEMAFLSQUATINTK.A.PLEIGLEDTLLKEK.NV ENVREK.KAHLEDIRLSLELSRVRTD.L.PLEVDLA.QGREP.DR KKYQTL.HREQABARFSRQLATVTD.V.PVLDLAARGEV.DUVDUV
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfa_Pol Ssu_Pol Ssu_Pol Da_Pol Bst_Pol Ssu_Pol Cla_Pol Cla_Pol Cpn_Pol	229 2227 2224 2229 2377 2222 237 2222 237 2222 2224 2224 2	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKLVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQRETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATHVCD.LPLVVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHDLSCAVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKYRTD.LPLEVDFA.KRREP.DR KKHREL.TIKEKENAFLSYEVSJEENLKIFEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLATKTD.LPLEVDFA.KRREP.DR KKHREL.TIKEKENAFLSKELSKYRTD.LPLEVDLA.QGREP.DR KKHREL.TRQHREMALLSKK AA FRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLRLSLELSKYRTD.LPLEVDFALRRFP.DL EKLKET. HRQHREMALLSKK AA FRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLD AR GRTD.L. PLEVDFKALRRFP.DL EKLKEN. GQYRDLALLSKQIAS CCD.APVELSLDDIVYKGE.DR KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK IKQRKT.QONAREAALISWKIGIDSN.VDLDFDLNNLKWSPP.NS .SLREK. QAGMEALALSKKI SQ'HTD.L. PLEVDFG.RRRTP.NL PKMYRA. HIHDKASAFLSKELATHERG.C. IKEFDFLSCAF.PSENPL EALRTK. VCGKKDAFFSRSIIEIRDD.VPCVFSLEDSCCIPLDVTS KKLKEN.FEFKDQALMSKELATMTD.A.PIEVSVSGLEYQGF.NR SKMKNN IIADKEMAFLSQUATINTK.A.PLEIGLEDTLLKEK.NV SKMYQTL.HREQAEAARFSRQLATIVTD.VPVVIDLLEAARIGVY.DR LSQ.TM.JSERQETLKLSKRALDSN.I.PIEVTFOLLEAARIGVY.DR LSQ.TM.SERVETLAUPNEN
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfl_Pol Lla_Pol Cla_Pol Bst_Po	229 229 227 2224 229 237 2224 229 237 2222 238 2224 2224 2224 2224 2224 2224	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLISKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR ATHVCD.LPLDVTKLEDLRTKEW.NK DGTRKK.LDSEENVKFSHDLSCVVTD.LPLDVEFG.VRRLPD.NP GKVGDA. RANLASVVRNRELTDVVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL. HIKEKENAFLSYELVSLEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQLATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLELSRVRTD.LPLEVDFA.QREP.DR EKLKET. HRQHREMALLSKKLAAIRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLRLSLELSRVRTD.LPLEVDFKALRRRTP.DL EKLKEN.RQYRDLALLSKQLAACCRD.APVELSLDDIVYEGQ.DR KKLGEK. LAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK IKQRKT.QAGMEALALSKKLAAIGDSN.VDLDFTLNLKWSPF.NS .SLREK.QAGMEALALSKKLATTRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYTLATKTD.VELNVTTDQLLGES.QK IKQRKT.QAGMEALALSKKLATTERG.CIKEFDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFGL.RRRTP.NL PKMYRA.THDKASAFLSKELATIMTD.APLEVGFGL.RRRTP.NL PKMYRA.THDKASAFLSKELATIMTD.APLEVGFGL.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSCAF.PSENFL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFLSLTFPQHPVDE KKLGEK.ILREQAEAARFSROLATVTD.VPLVQLDLEAARIGVY.DR LSQ.TM.JSERQETLKLSKRLALLDSN.IPIEVFIESLTFPQHPVDE GKVGEA.RTHLASVVRNRETTELVKD.VPLVQTSDTLRLQPW.DR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Tfi_Pol Hpy_Pol Tfa_Pol Lla_Pol Cla_Pol Cha_Pol Rol Bst_Pol Bst_Pol St_Po	229 2227 2224 2229 2377 2224 2229 2377 2220 2224 2224 2224 2226 2226 2226 2226	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLISKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR ATHVCD.LPLNVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCVVTD.LPLNVKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCVVTD.LPLDIEFG.VRRLPD.NP GKVGDA. FRANLASVVRNRELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK.LAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL.IKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK.EQNKEVAYLSYQHATKTD.VELELTCEQLEVQQP.AA ENVREX.KAHLEDLRLSLELSRVRTD.LPLEVDFA.QGREP.DR EKLKET.FRQHREMALLSKKLAATRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLD AR RTD.LPLEVDFKALRRTP.DL EKLKEN.FRQHRDLALLSKQLAAICRD.APVELSLDDIVYEGC.DR KKLGEK.ILAEKNNADLSYTLATKTD.VELNVTTDQLLLGES.QK IKQRKT.QOAREAALISWKIGIDSN.VDLDFLNNLKWSPF.NS .SLREK.QGMEALALSKKLATIERG.CIKEFDFLSCAF.PSENFL EKLKEK.LEEFKDQALMSKELATIERG.CIKEFDFLSCAF.PSENFL KKLGEK.LEEFKDQALMSKELATIERG.CIKEFDFLSCAF.PSENPL KKLKEK.LEEFKDQALMSKELATIERG.CPUEVSUSGLEYQGF.NR SKKKNN.IIADKEMAFLSQUATINTK.A.PLEVDFA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRIELSTNT.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAARFSRUATIVTD.VPVQLDLAARIGVY.DR LSQ.TM.ISERQETIKLSKRLAITMTD.L.PLEVDLA.QGREP.DR KRYQTL.REQAEAAFSRUATVT.VD.V.PVQLDLAARIGVY.DR KRAREG.LINHREEALLSKRLVT.RTD.V.PLRIRWEAFHRARP.DL GALKTR.DNGKDDAMHSOMTARIVVD.V.PLVTWELLOLTGF.ST
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hin_Pol Rpr_Pol Tfl_Pol Bsu_Pol Lla_Pol Cla_Pol Cla_Pol Cla_Pol Rhodothermus_Pol Synechocystis_Pol	229 227 2229 227 2229 237 2222 237 2222 2224 2222 2222 2222 2	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKJYTD.LDIELSEEDLKIKRP.DL KTK.QM. EDQKETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKR ATHMD.LPLVTKLEDLRTKEW.NK DGTRKK.HLDSEENVKFSHDLSCVVTD.LPLNVKLEDLRTKEW.NK GKVGDA. WANLASVVRNRELTDIVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKKRTD.LPLEVDFA.KRREP.DR KKHREL. IKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK.EQNKEVAYLSYQHATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEISKWRTD.LPLEVDFA.QGREP.DR EKLKET.WRQHREMALLSKKLAATRRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLD ARKRTD.LPLEVDFALRRRTP.DL EKLKEN.RQYRDLALLSKGLAACRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYT ATKTD.VELNVTTDQLLLGES.QK IKQRKT.QAAMEAALISWKLIGIDSN.VDLDFDLNNLKWSPP.NS .SLREK.TQAGMEALALSKKLATTERD.VPLEVDFG.RRTP.NL PKMYRA.HHDKASAFLSKELATHERG.C.IKEFDFLSCAF.PSENPL SKKKEN.KVGKKDAFFSRSLIELRDD.VPCVFSLEDSCCIPLDVTS KKLKEK.LEEFKDQALMSKELATIMTD.APLEVSUSGLEYQGF.NR SKMKDN.HADKASAFLSKELATIERG.C.IKEFDFLSCAF.PSENPL EALRTK.VVGKKDAFFSRSLIELRDD.VPCVFSLEDSCCIPLDVTS KKLKEK.LEEFKDQALMSKELATIMTD.A.PLEVDLA.QGREP.DR KRYQTL.REQAEAAFSRQLATINTK.A.PLEIGLEDTLKEK.NV ENVREK.KAHLEDLRLSLEYRYRTD.L.PLEVDAA.GGREP.DR KRYQTL.KEQAEAAFSRQLATINTK.A.PLEIGLEDTLKEK.NV ENVREK.KAHLEDLRLSLEYRYRTD.L.PLEVDAA.GGREP.DR KRYQTL.KEQAEAAFSRQLATINTK.A.PLEIGLEDTLKEK.NV ENVREK.KAHLEDLRLSLEYRYRTD.L.PLEVDAA.GGREP.DR KRYQTL.KEQAEAAFSRQLATINTK.A.PLEIGLEDTLKEK.NV ENVREK.KAHLEDLRLSKEVATINT.PLVVT.PLEVTWEDLANCGREP.DR KRYQTL.KEQAEAAFSRQLATINTK.A.PLEIGLEDTLKEK.NV ENVREK.KAHLEDLRLSKEVATITTD.V.PLVVTSDTLRLQPW.DR KRAREG.LINHREEALLSKRIVTTRTD.V.PLVVTSDTLRLQPW.DR KRAREG.LINHREEALLSKRIVTTRTD.V.PLVVTSDTLRLQPW.DR KRAREG.KINHREEALLSKRIVTTRTD.V.PLVTWEDLQLTGF.ST KGOOGK.FOOGLSDLEMSKMAEAKEATVT.KELVLPLACTUREAAFLARAF.DL GALKTR.DNGKDDAMHSQMLARIVVD.PLVCTSDTLKLDALFTLOMEOA
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol AHIN_POL Tfl_Pol Tfl_Pol Tfl_Pol Bsu_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge exo	229 217 2229 227 2229 237 2220 2224 2220 2224 2220 2224 2222 2222 2222 2222 2222 2222 2222 2222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKT VKTTD.LDIELSEEDLKIKRPDL KTK.QM. EEDQKETLLLSKRLATTHMD.LAFPLTTEEFAFSPQAIDS S.IREK. EAGKDMAFLSKRLATTHVCD.LPLNVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHDLSCVTD.LPLNVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHDLSCVTD.LPLNVKLEDLRTKEW.NK MGKVGDA. RANLASVVRNREITDLVRD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDLAKVRTD.LPLEVDFA.KREF.DR KKHREL. IKEKENAFLSYELVSJEENLKIPEIENFALKNFS KTMAAK. IEQNKEVAYLSYQLATIKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEISRYRTD.LPLEVDFA.KRREF.DR EKLKET. IRQHREMALLSKKLAA RRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDLARCRTD.LPLEVDFKALRRRFF.DL EKLKEN. RQYRDLALLSKQLAATCRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYTLATIKTD.VELNVTTDQLLGES.QK IKQRKT.LQAMEAALISKKLAATCRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYTLATIKTD.VELNVTTDQLLGES.QK IKQRKT.LQAMEAALSKKLSQ'AATCRD.APVELSLDDIVYEGQ.DR SLREK. QAGMEALALSKKLSQ'AATCRD.APLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.RRRTP.NL PKMYRA.LIHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSLIETRDD.VPLEVDFG.MRGVY.DR KRYQTL.REQAEAAFSRCATTVTD.VPLEVDVASGEYQGF.NR SKMKDN.LIADKEMAFLSQUATTNTK.APLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRLSKELATIMTD.APLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRLSKELATIMTD.APLEVVDSVSGLEYQGF.NR SKMKDN.LIADKEMAFLSKVINRELTELVKD.VPLVVTSDTLRLQPW.DR KRAREG.LNHREEALLSKRVVTRTD.VPLVVTSDTLRLQPW.DR KRAREG.LNHREEALLSKRVVTRELTELVKD.VPLNVWEDLQLTGF.ST KGQQGK.LQQLSDLEMSRKTAELTELVKD.VPLNCTKDAJHFNARP.DL GALKTR.LDNGKEJAKTFSFLAKKTKTD.IELDONIDLTGLKF.IOK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Tfl_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo T3_exo	2217022229 22222222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGFDV QREF.PRAKKEDLELSYK VKTYTD.LDIELSEEDLKIKRPDL KTK.QM. EEDQKETLLISKRLAT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. EEDGKDMAFLSKRLAT HVCD.LPLNVKLEDLRTKEWNK DGTRKK. LDSEENVKFSHDLSCVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNREITDLVRD.VPLAQTPDTLRLQPW.DR AIREK. LAHMDDLKLSWDLAK RTD.LPLEVDFA.KRREP.DR KKHREL. IKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK. EQNKEVAYLSYQLAT KTD.VELELTCEQLEVQQP.AA ENVREK. KAHLEDLRLSLEISRVRTD.LPLEVDLA.QGREP.DR EKLKET. RQHREMALLSKKLAA RRD.APVELSLDDIAYQGE.DR DSLRKK. EAHLEDLHLSLDLAR RRD.APVELSLDDIAYQGE.DR EKLKEN. RQYRDLALLSKQLAA CRD.APVELSLDDIVYEGQ.DR KKLGEK. LAEKNNADLSYT AT KTD.VELNVTDQLLLGES.QK IKQRKT. QOAMEALALSKKI GASICCD.APVELSLDDIVYEGQ.DR KKLGEK. LAEKNNADLSYT AT KTD.VELNVTDQLLGES.QK IKQRKT. QAMEAALISKKI GYHTD.LPLEVDFG.RRRTF.NL PKMYRA.IHDKASAFLSKELATIERG.CIKEFDFLSCAF.PSENPL EALRTK.TVCGKKDAFFSRSIIEIRDD.VPCVFSLEDSCCIPLDVTS KKLKEN.IGEFKDQALMSKELAT MTD.APIEVSVSGLEYQGF.NR SKKKNN ITADKEMAFLSQULAT NTK.APLEIGLEDTLLKEK.NV ENVREK.TKAHLEDLRLSLEISR VRTD.L.PLEVDAA.QGREP.DR KKYQTLIREQAEAAFSRQLAT VTD.VPLVTSDLRLQVF.DR KKRYQLIREQAEAAFSRQLAT VTD.VPLVTSDLRLQVF.DR KRAREG.LNHREEALLSKRIALTUDSN.VDLDFDLNLKWSPF.NS SKKKEN IEFFKDQALMSKELAT MTD.APIEVSVSGLEYQGF.NR SKKKNN ITADKEMAFLSQULAT NTK.APLEIGLEDTLLKEK.NV ENVREK.TKAHLEDLRLSLEISR VTTNTPLVYDESLTFPQHPVDE GKVGEA.LRTHLASVVNRRELTELVD.VPLVTSDLRLQV.DR KRAREG.LNHREEALLSKRIALIDSN.I.PIPVPIESLTFPQHPVDE GKVGEA.LRTHASVVNRRETELVD.VPLVTWEDLQLTGF.ST KGQQGK.IQQGLSDLEMSRKAAETVUD.VPLACTKDAAFHARAF.DL GALKTR.IDNGKDAMHSQMIARTVVD.VPLACTKDAAFHARAF.DL GALKTR.IDNGKEDAKFSFLAKIKAETGLS.VPLACTKDAAFHARAF.DL GALKTR.IDNGKEDAKFSFLAKIKAETGLS.VPLACTKDAAFHARAF.DL GALKTR.IDNGKEDAKFSFLAKIKAETGLS.VPLACTKDAAFHARAF.DL GALKTR.IDNGKDAMHSQMIARTVVD.VPLACTKDRAFFRARF.DL GALKTR.IDNGKEDAKFSFLAKIKAETGLS.VPLACTKDRAFFRARF.DL GALKTR.IDNGKDAMHSQMIARTVVD.VPLACTKDAAFHRARF.DL GALKTR.IDNGKEDAKFSFLAKIKAETFFLAKIKAETFLYNCE
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo T3_exo T4_exo	2297222084 2229222222222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKYTD.LDIELSEEDLKIKRPDL KTK.QM. HEDQKETLLLSKR ATHDTD.LAFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATVCD.LPLDVKLEDLRTKEWNK DGTRKK. ILDSEENVKFSHDISCYVTD.LPLDIEFG.VRRLPDNP GKVGDA. RANLASVVRNELTDVVD.VPLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKISWDIAKWRTD.LPLEVDFA.KRREF.DR KKHREL. IKEKENAFLSYELVSIEENLKIPEIENFALKNFS KTMAAK. HEQNKEVAYLSYQIATKKTD.V ELELTCEQLEVQQF.AA ENVREK. KAHLEDLRLSLEISRVRTD.LPLEVDLA.QGREP.DR EKLKET. LRQHREMALLSKKLAATRDD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLDIAR RTD.LPLEVDFKALRRTP.DL EKLKEN.RQYRDLALLSKQIAATCRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYTIATKTD.VELNVTTDQLLLGES.QK IKQRKT.QNAREAALISKKIGIDSN.VDLDFDLNNLKWSPP.NS .SLREK.QAGMEALALSKKIGTIGDSN.VDLDFDLNNLKWSPP.NS .SLREK.QAGMEALALSKKIGTIERG.C.IKEFDFLSCAF.PSENPL EALRTK.TVCGKKDAFFSRSIIELRDD.VPVEVSLEDSCCIFLDVTS KKLGEK.KAHLEDLRLSLETSRVRTD.LPLEVDFG.RRRTF.NL PKMYRA.IHDKASAFLSKEIATIERG.C.IKEFDFLSCAF.PSENPL EALRTK.TVCGKKDAFFSRSIIELRDD.VPVSSLEDSCCIFLDVTS KKLKEK.DEFKDQALMSKEIATIMTD.APLEUSDSCIFLDVTS KKLKEK.ZAEALEDRAFFSRQIATINTK.A.PLEUSDTLLQGE.DR LSQ.TM.ISERQETLKLSKRIALDSN.I.PIPVPIESLTFPQHPVDE GVVGEA.LRTHLASVVRNREITEVKD.VPLVVTDQLLGEST.PQ SKMKDN.IIADKEMAFLSQUATINTK.A.PLEUGDTLKEK.NV ENVREK.KAHLEDIRLSLESKRIALDSN.I.PIPVPIESLTFPQHPVDE GVVGEA.LRTHLASVRNREITEVKD.VPLVVTBDLTRLQPW.DR KRAREG.LINNREEALSKRIVTIKTD.VPLVVTBDLTRLQPW.DR KRAREG.LINNREEALSKRIVTIKTD.VPLVTWEDLQLTGF.ST KGQQGK.TQQGLSDLEMSRKIAETHCS.VPLACTLKDALFTLQMEQA NQLYKLJENQKEIAKTFSFLAKTKALETHCS.VPLACTLKDALFTLQMEQA NQLQKLJENNQKEIAKTFSFLAKTKDI.I.ELDQNILTGLFF.IQK QTVKWVKRAPDATETLWDCKSSGAKAMTEQEIKKQGMARILRFEEY DREQAKVILLTESEYNRYKENKVLYLDFD.YINSXKLPFR
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo	229 2222 2222 2222 2222 2222 2222 2222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT AT DTK.A. PIAIGLEDLVYSGPDV .QREF.PRAKKEDLELSYKTVKTYTD.L. DIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKRTAT HMD.L. AFPLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKRTAT HVD.L. PLNVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHDISCTVTD.L. PLNVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHDISCTVTD.L. PLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNREITDLVRD.V. PLAQTPDTLRLQPW.DR .AIREK. LAHMDDLKLSWDTAKTRTD.V. PLEVDFA.KRREP.DR KKHREL. IIKEKENAFLSYETVSTENLKIPEIENFALKNFS KTMAAK. EQNKEVAYLSYQTATKTD.V. ELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLETSRWRTD.L. PLEVDLA.QGREP.DR EKLKET. RQHREMALLSKKTAATRD.A. PVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLDTARTD.L. PLEVDLA.QGREP.DR KKLGEK.ILAEKNNADLSYTTATKTD.V. ELNVTTDQLLLGES.QK IKQRK.QAGMEALALSKKTATTKTD.V. ELNVTTDQLLLGES.QK IKQRK.QAGMEALALSKKTATTKTD.V. DLDFDINNLKWSPP.NS SLREK.QAGMEALALSKKTATTKTD.V. ELNVTTDQLLLGES.QK IKQRK.QAGMEALALSKKTATTKTD.V. DLDFDLNNLKWSPP.NS SLREK.QAGMEALALSKKTATTERG.C. IKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSTIELRDD.V. PCVFSLEDSCCIPLDVTS KKLEK.EEFKDQALMSKETATTERG.C. IKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRSTIELRDD.V. PLUSTDLL.QGREP.DR KKYQTL.REQAEAARFSRQTATTVT.A.PLEVSVSGLEYQGF.NR SKMKDN.IADKEMAFLSQUATTNTK.A.PLEUSDICLIPVTS KKLEK.ZEFFDQALMSKETATIERG.C.IKEFDFLSCAF.PSENPL BALRTK.DVCGKKDAFFSRSTIETVD.V. PLUSTDLLA.QGREP.DR KKYQTL.REQAEAARFSRQTATVTD.V. PLUSTDLLARGY.DR KKAREG.LINNEEMAFLSQUATTNTK.A.PLEUGLEDTLLKEK.NV ENVREK.ZKAHLEDLRLSET SKWKDN.IADKEMAFLSQUATTNTK.A.PLEUGLEDTLLKEK.NV ENVREK.ZKAHLEDLRSKETATTERG.V. PLOYTSDTLRLQPW.DR KRAREG.LINNEEALLSKRTVTTRTD.V. PLACTKDALFTLQPW.DR KRAREG.LINNEEALSKRTVTTRTD.V. PLACTKDALFTLQPW.DR KRAREG.LINNEEALLSKRTVTTRTD.V. PLACTKDALFTLQPW.DR KRAREG.LINNEEALSKRTVTTRTD.V. PLACTKDALFTLQPW.DR KRAREG.LINNEEALLSKRTVTRTD.V. PLACTKDALFTLQPW.TR MALKTRAPDATETLWDCTKSTGAKAGMTEQEIIKCQMARLIFFEY DREQAKVLLTESEYNRYKENTYLDTKTD.V. PLACTKDALFTLQPK.IGK QVYTKWVKRAPDATETLWDCTKSTGAKAGMTEQEIIKCQMARLFFEY DREQAKVLLTESEYNRYKENTYLDT
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T7_exo	229722249237722208 2229222222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKTYTD.LDIELSEEDLKIKRPDL KTK.QM. HEDQKETLLLSKR ATHMD.LAFPLTTEEFAFSPQAIDS S.IREK.HEAGKDMAFLSKR ATTVCD.LPLNVKLEDLRTKEWNK DGTRKK.LDSEENVKFSHDISCTVTD.LPLDIEFG.VRRLPD.NP GKVGDA.RANLASVVRNRETDVVD.VPLAQTPDTLRLQPW.DR KKHREL.IIKEKENAFLSYETVSTEENLKIPEIENFALKNFS KTMAAK.EQNKEVAYLSYQTATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLEJSKKTAATRD.LPLEVDFA.KRREP.DR KKLRET.RQHREMALLSKKTAATRD.LPLEVDLA.QGREP.DR EKLKET.RQHREMALLSKKTAATRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLDTATRTD.LPLEVDLA.QGREP.DR KKLGEK.IAEKNNADLSYTTATKTD.VELNVTTDQLLLGES.QK IKQRKT.QUAREAALISKKTAATRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYTTATKTD.VELNVTTDQLLLGES.QK IKQRKT.QUAREAALISKKTIG DSN.VDLDFDLNIKWSPP.NS SLREK.QQAMEALALSKKIGVHTD.L.PLEVDFG.RRRTP.NL PKMYRA.IHDKASAFLSKETATIERG.C.IKEFDFLSCAF.PSENPL EALRTK.DVCGKKDAFFSRSTIETRD.VPCVFSLEDSCCIPLDVTS KKKEN.EEFKDQALMSKETATIMTAA.PIEVSVSGLEYQGF.NR KKNQTL.IREQAEAARFSRGTATINTKAA.PIEVSVSGLEYQGF.NR KKRQTL.KAHLEDLRLSLETSRKTVD.VPLUGTSDTLKEK.NV ENVREK.KAHLEDLRLSLETSRKTVD.VPLUGTSDTLKEK.NV ENVREK.KAHLEDLRSKFSTIETEVKD.VPLUGTSDTLKLQFW.DR KRAQTL.REQAEAARFSRGTATINTK.A.PIEVSVSGLEYQGF.NR KKRQUTLIREQAEAARFSRGTATINTK.A.PIEVSVSGLEYQGF.NR KRAREG.LNHREEALLSKRTVTIRTUV.PLQTSDTLKLQFW.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLQTSDTLKLQFW.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLQTSDTLKLQFW.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLQTSDTLKLQFW.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLQTSDTLKLGPW.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLQTSDTLKLGAARIGVY.DR KRAREG.LNHREEALLSKRTVTIRTD.VPLARTWAAFHRARP.DL GALKTR.DNGKDAMHSQMTARLVD.VPLARTWAAFHRARP.DL GALKTR.LNGKDAMHSQMTARLVD.VPLARTWAAFHRARP.DL GALKTR.LNGKDAMHSQMTARLVD.VPLARTWAAFHRARP.DL GALKTR.LNGKDAMHSQMTARVTIRTTELVKD.VPLARTWAAFHRARP.DL GALKTR.LNGKDAMHSQMTARLVD.VPLARTWAAFHRARP.DL GALKTR.LNGKDAMHSQMTARLVD.VPLARTWAAFHRARF.DL GALKTR.LNGKDAMHSQMTARLYDVT.CVDALAAVGQMARLEFTY DREQAKVULTESEYNRYKENTULTDTD.YNAAAKENTARTSYKLPFY
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Eco_Pol Tfi_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Tfl_Pol Tfl_Pol Tfl_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T5_exo T7_exo Mpn_exo	229722208 222722222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT AT DTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYKTVKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. EEQQKETLLLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. EEAGKDMAFLSKR AT HMD.LAFPLTTEEFAFSPQAIDS S.IREK. ELDSEENVKFSHD SCTVTD.LPLDIEFG.VRRLPD.NP GKVGDA. RANLASVVRNRET DV VRD.VPLAQTPDTLRLQPW.DR AIREK. LAHMDDLKLSWD AK RTD.LPLEVDFAKRREP.DR KKHREL. IKEKENAFLSYG AT KKTD.VELELTCEQLEVQQP.AA ENVREK. KAHLEDLRLSLE SRVRTD.LPLEVDFAQGREP.DR EKLKET. URQHREMALLSKK AA TRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHLSLD AR TRTD.LPLEVDFAALRRTP.DL EKLKEN. RQYRDLALLSKG AA CRD.APVELSLDDIVYGG.DR KKLGEK.ILAEKNNADLSYT AT TKTD.VELNVTTDQLLLGES.QK IKQRKT.QAGMEALALSKK SQ HTD.L. PLEVDFG.RRRTP.NL PKKLGEK.ILAEKNNADLSYT AT TKTD.VELNVTTDQLLLGES.QK KKLGEK.ILAEKNNADLSYT AT TKTD.VELNVTTDQLLLGES.QK SLRKK.QAGMEALALSKK SQ HTD.L. PLEVDFG.RRRTP.NL PKMYRA.IHDKASAFLSKE AT ERG.CIKEFDFLSCAF.PSENPL SLRKK.DEFKDQALMSKE AT HERG.CIKEFDFLSCAF.PSENPL KKLGEK.KAHLEDLRLSLE SR RTD.L. PLEVDFG.RRRTP.NL PKMYRA.IHDKASAFLSKE AT HERG.CIKEFDFLSCAF.PSENPL SLRKK.DEFKDQALMSKE AT HERG.CIKEFDFLSCAF.PSENPL KKLQCKL.DEFKDQALMSKE AT HERG.CIKEFDFLSCAF.PSENPL SKLKEK.LEEFKDQALMSKE AT HERG.CIKEFDFLSCAF.NSENPL KKYQTL.IREQAEAAFSRQIATINTK.APLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRSLE SR RTD.L. PLEVDFG.RRRTP.NR KRYQTL.IREQAEAAFSRQIATIVTD.VPLQUDEAARIGVY.DR LSQ.TM.ISERQETLKLSKR VITKTD.VPLQUDEAARIGVY.DR KRAREG LINNEEALLSKR VITKTD.VPLQUDEAARIGVY.DR KRAREG LINNEEALLSKR VITKTD.VPLQUDEAARIGVY.DR KRAREG LINNEEALLSKR VITKTD.VPLQUDEAARIGVY.DR KRAREG LINNEEALLSKR VITKTD.VPLACTLKDALFTLQMEQA NQLQKLINNGKEIAKTFF AKIKTD.IELDQNIDLTGLKP.IQK QUVKWVKRAPDATETLWDCIKSTGAKAGMTEQEIIKQGQMARILRFEY DREQAKVLLTESEYNRYKEN VLLDFD.YIPDNIASNIVNYNSYKLPPR QKYIQN.MASEELLFRNLIVDCIKSTGAKAGMTEQEIIKQGQMARILRFEY KALQTI.LQGQIDTAKKFSF AKIKTD.IVLNDDIVHAALKP.IDK
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Taq_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Min_Pol Tfl_Pol Tfl_Pol Tfl_Pol Tsp_Pol Tsp_Pol Dsu_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo Mpn_exo Mtb_exo	2297 2229 2220 2222 2222 2222 2222 2222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKTYTD.LDIELSEEDLKIKRP.DL KTK.QM. HEDQKETLLLSKR ATHVCD.LPLNVKLEDLRTKEW.NK DGTRKK. LDSEENVKFSHD SCVYD.LPLNVKLEDLRTKEW.NK DGTRKK.LDSEENVKFSHD SCVYD.LPLDIEFG.VRRLPD.NP GKVGDA. GRANLASVVRNRETDUVRD.VPLAQTPDTLRLQPW.DR .AIREK.LAHMDDLKLSWD AKKRTD.LPLEVDFA.KRREP.DR KHREL.IIKEKENAFLSYE VSTEENLKIPEINFALKNFS KTMAAK.HEQNKEVAYLSY GTATKTD.VELELTCEQLEVQQP.AA ENVREK.KAHLEDLRLSLE SRMRTD.LPLEVDFA.KRREP.DR EKLKET. GQHREMALLSKG AATRRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLD AR RTD.LPLEVDFALRRTP.DL EKLKEN.GQYRDLALLSKG AATCRD.APVELSLDDIVYEGQ.DR KKLGEK.LAEKNNADLSYT ATTKTD.VELNVTTDQLLGES.QK IKQRKT HQNAREAALLSKK SQMHTD.L.PLEVDFA.RRTP.NL PKMYRA.HIHDKASAFLSKE ATLERG.CIKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRS IELRDD.V.PCVFSLDSCCIPLDVTS KKLKEK.EEFFDQALMSKE ATLERG.CKEFDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRS IELRDD.V.PVUSSLDSCCIPLDVTS KKLKEK.EEFFDQALMSKE ATTMTD.A.PLEVDFA.GGREP.DR KKLKEK.EEFFDQALMSKE ATTMTD.A.PLEVDFA.QGREP.DR KKLGRK.TLABEAALLSKK SQMATD.L.PLEVDFG.RRTP.NL PKMYRA.HIHDKASAFLSKE ATTMTD.A.PLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRLSLE SRVRTD.L.PLEVDLA.QGREP.DR KKLKEK.DEEFFDQALMSKE ATTMTD.A.PLEIGLEDTLLKEK.NV ENVREK.KAHLEDLRLSLE SRVRTD.L.PLEVDLA.QGREP.DR KRYQTL.REQAEARFSRO ATTVTD.V.PLQTSDTLRLQPW.DR KRAREG.LINNREEALLSKK VTTR.VD.V.PLQTSDTLRLQPW.DR KRAREG.LINNREEALLSKK ALLDSN.I.PIPVYIESLTFPQHPVDE GVGGA.YQQGLSDLEMSKK AETHCS.V.PLACTLKDALFTLQMEQA NQLQKL.NNQKEIAKTFFFAKTKTD.I.ELDQNIDTGLKP.JC QVYKWKRDPATETLWCCKSSTGAKAGMTEQEIIKQGQMARILFFEY RAQQGK.YQQGLSDLEMSKK AETHCS.V.PLACTLKDALFTLQMEQA NQLQKLLNNQKEIAKTFFFAKTKTD.I.KLDDIVHAALKP.IDK KALLPSN.ILPEQAKVILTESEVNRYKEN VITRTD.I.SUNVNYNSYKLPPR QXYIQN.LNASEELLFRNIL VUDPTY.C.VDAIAAVGQMARILFFEY RAQQGK.YQQGIDTAKKFFFAKTGAKAGMTEDIIKQGQMARILFFEY KALQTI.EQQIDTAKKFFFAKTGANTEDIIK.GOMARILFFEY KALQTI.EQQIDTAKKFFFAKTCD.A.PVTSTPDFFLVAADP
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Ath_Pol Tfl_Pol Tfl_Pol Bsu_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mpn_exo Mtb_exo Eco_exo	2297 2222 2222 2222 2222 2222 2222 2222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF. PRAKKEDLELSYK VKTYTD.LDIELSEEDLKIKRPDL KTK.QM. EEQQKETLLLSKR ATTUTD.LDIELSEEDLKIKRPDL KTK.QM. EEQQKETLLSKR ATTUTD.LPLDTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATTVCD.LPLNVKLEDLRTKEWNK DGTRKK. LLDSENVKFSHD'SC VYD.LPLNVKLEDLRTKEWNK DGTRKK. LLASENVKSPHD'SC VYD.LPLVDFAKREPDR KKHREL IIKEKNAFLSYE VSIEENLKIPEIENFALKNFS KTMAAK. EQNKEVAYLSYQ TATKTD.LPLEVDFAKREP.DR KKHREL IIKEKNAFLSKE SRYRTD.LPLEVDFAKREP.DR EKLKET. RQHREMALLSKE SRYRTD.LPLEVDLAQGREP.DR EKLKET. RQHREMALLSKE AAARRD.APVELSLDDIAYQGE.DR DSLRRK. EAHLEDLHISLD ARKRTD.LPLEVDLAQGREP.DR EKLKEN. RQYRDLALLSKG AAACCD.APVELSLDDIVYKGE.DR EKLKEN. RQYRDLALLSKG AACCD.APVELSLDDIVYKGE.DR EKLKEN. GAGMEALALSKK SQMHTD.L. PLEVDFKALRRTP.DL KKLGEK. LASKNNADLSYT ATTKTD.VELNVTTDQLLLGES.QK IKQRKT. QNAREAALISKK SQMHTD.L. PLEVDFG.RRRTP.NL PKMYRA. HIHDKASAFLSKE ATTKTD.APVELSLDDIVYKGE.OR SLREK. QAGMEALALSKK SQMHTD.L. PLEVDFG.RRTP.NL PKMYRA. HIHDKASAFLSKE ATTMTD.APUEIGLEDFLLKEK.NV SKKKDN. IIADKEMAFLSQU ATTNTK.APLEIGLEDFLLKEK.NV SKKKDN. IIADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RVYQTL. REQAEAARFSRQ ATTVTD.VPUVTSDLLLGES.QK KAQQK. QUGELLSEEF ATTMTD.APLEVDFGGREP.DR KRYQTL.HREQAEAARFSRQ ATTVTD.VPUVTSDLLLKEK.NV SKKKDN.IIADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RNRGU IADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RNRGU IADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RNRGU IADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RNRGU IADKEMAFLSQU ATTNTK.A. PLEIGLEDFLLKEK.NV RNYQTL IAREAARFSRQ ATTVTD.V. PLVYTWEDLLEFP.DR KRYQCI.LIAREAARFSRQ ATTVTD.V. PLVYTWEDLLEFP.DR KRYQCI.LIAREAARFSRQ ATTVTD.V. PLVYTWEALQINGF.ST KGQQKK.TQQGILSDLEMSKE ATTNTC.N. PLPYTWEAFHRARP.DL GALKTR. DNGKDDAMHSQM ARLYVD.V. PLPYTWEAFHRARP.DL GALKTR. DNGKDDAMHSQM ARLYVD.V. PLPYTWEAFHRARP.DL GALKTR. DNGKDAMHSQM ARTVTD.V. PLPYTWEAFHRARP.DL GALKTR.LONGKEIAKTFFF AKTKTD.IELDQNIDLTGLKF.T QEVTKWVKRAPDATETENNIT VULPFY.CVDAIAAVGQDVLDKF.T QEVTKWVKRDPEHETINDCTKSTGAKAGM
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Mtb_Pol Bbu_Pol Eco_Pol Tca_Pol Bst	22722222222222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATT DTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKHYTD.LDIELSEEDLKIKRP.DL KTK.QM. EEQQKETLLSKR ATT WCD.L AFFLTTEEFAFSPQAIDS S.IREK. EEAGKDMAFLSKR ATT WCD.L PLDVKLEDLRTKEW.NK DGTRKK.LDSEENVKFSHD SC VTD.LPLDIEFG.VRRLPD.NP GKVGDA.RANLASVVRNEE TDLVRD.VPLAQTPDTLRQPW.DR AIREK.LLAHMDDLKLSWD AKKRTD.LPLEVDFA.KRREP.DR KKHHEL IIKEKENAFLSYE VSEENKIFEIENFALKNFS KTMAAK.EQNKEVAYLSYO ATTKTD.VELELTCEQLEVQQP.AA ENVREX.KAHLEDLRLSLE SKMRTD.LPLEVDFA.KRREP.DR KKHET.RQHREMALISKK AATRD.APVELSLDDIAYQGE.DR DSLRRK.EAHLEDLHLSLD AATRD.APVELSLDDIAYQGE.DR EKLKEN.RQYRDLALLSKG AATCRD.APVELSLDDIVYGG.DR KKLGEK.LAEKNNADLSYT ATTKTD.VELNVTTDQLLLGES.QK IKQRT.JQNAREAALISKK TGTDSN.VDLDFDLNNLKWSPP.NL SLREK.YQGKKDAFFSRS EFRDD.VPCVFFG.RRRTP.NL PKMYRA.THDKASAFLSKE ATTERG.CIKETDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRS EFRDD.VPCVFFGLEYGG.NRRTP.NL PKMYRA.THDKASAFLSKE ATTERG.C.IKETDFLSCAF.PSENPL EALRTK.VEGKKDAFFSRS IEIRDD.VPCVFSLEDSCIPLDVTS KKLGEK.IKAHLEDLRLSE SKWRTD.L.PLEVDFG.RRRTP.NL PKMYRA.THDKASAFLSKE ATTERG.C.IKETDFLSCAF.PSENPL EALRTK.VCGKKDAFFSRS IEIRDD.VPLUVFSGLEYQGF.NR SKMKDN.ILADKEMAFLSQO ATTNTKA.PIEJSVSGLEYQGF.NR SKMKDN.ILADKEMAFLSQO ATTNTKA.PIEJSVSGLEYQGF.NR SKMKDN.ILADKEMAFLSQO ATTNTKA.PIEJSVSGLEYQGF.NR SKMKDN.ILADKEMAFLSQO ATTNTKA.PIEJSVSGLEYQGF.NR SKMKDN.ILADKEMAFLSQO ATTNTKA.PIEJSVSGLEYQGF.ST KQQQGK.JQQGLSDLEMSRK AEHDSN.I.PIPVPIESLTFPQHPVDE KARARGILNHREEALLSKR TATLKTD.VPLRIMEAFHRARP.DL GALKTR.LNNQKEIAKKFTARKARDING ARHVVD.V.PLRIMEAFHRARP.DL GALKTR.LNNQKEIAKTFFTARKATTD.L.PLEVDLA.QGCMARILRFNEY RKARAEGILNNKEEALTMUCKSTGAKAGMTEQEIIKQGQMARILRFNEY KALQCILLNNQKEIAKFFFTARKADTVD.V.PLRIMEAFHRARP.DL GKVGRA.LKTNKRAPDATETLWDC KSTGAKAGMTEQIIKQGQMARILRFNEY KALQCILLENNQKEIAKFFFTARKADTVD.V.PLRIMEAFHRARP.DL GKVRWKRAPDATETLWDC KSTGAKAGMTEEDIIKQGQMARILRFNEY KALQTI.CQGIDTAKKFFFTARKATUTD.N.HDGNLQQLRLVR HKEAHQLFLEFEVLDDESVERKWSEPNEELIKFMCGEKQFGEFERRSGV
Spn_Pol Aae_Pol Ctr_Pol Ath_Pol Dra_Pol Bbu_Pol Eco_Pol Tca_Pol Bbu_Pol Eco_Pol Tca_Pol Bst_Pol Bst_Pol Bst_Pol Bst_Pol Hpy_Pol Tfl_Pol Hpy_Pol Tfl_Pol Cla_Pol Cla_Pol Cla_Pol Cla_Pol Synechocystis_Pol Synechocystis_Pol Bsu_exo Mge_exo T3_exo T4_exo T5_exo Mtb_exo Eco_exo hFEN-1 MjFEN-1	22722222222222222222222222222222222222	al Gd sdni gv gvg k a 11 sle i SKMKEN. HINDKEQAFLSKT ATHDTK.APIAIGLEDLVYSGPDV QREF.PRAKKEDLELSYK VKHYTD.LDIELSEEDLKIKRPDL KTK.QM. EDQKETLLSKR ATHVD.LAFFLTTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATVCD.LPLDYTEEFAFSPQAIDS S.IREK. HEAGKDMAFLSKR ATVCD.LPLDYKLEDLRTKEWNK DGTRKK.LLDSEUVKFSHD SCYVCD.LPLDYTEFG.VRRLPD.NP GKVGDA. RANLASVYRNEF TDUVRD.VPLQTPDTLRLQPWDR AIREK.LLAHMDDLKLSWD TVSDEENKIPEIENFALKNFS KTMAAK.TEQNKEVAYLSYQ ATTKTD.VELELTCEQLEVQQPAA ENVREK.KAHLEDLRLSEE SKMRTD.LPLEVDLA.QGREPDR KKHREL.TIKEKENAFLSVE VSJEENKIPEIENFALKNFS KTMAAK.TEQNKEVAYLSYQ ATTKTD.VELELTCEQLEVQQPAA ENVREK.KAHLEDLRLSEE SKMRTD.LPLEVDLA.QGREPDR DSLRRK.EAHLEDLHLSLD AR RTD.LPLEVDFKALRRTP.DL EKLKEN.TRQYRDLALLSKQ AATCRD.APVELSLDDIVYGGE.DR DSLRRK.EAHLEDLHLSLD AR RTD.LPLEVDFKALRRTP.DL EKLKEN.TQYNDLALLSKQT AATCKD.APVELSLDDIVYGG.OR KKLGEK.LLAEKNNADLSYT ATTKTD.VELNVTTDQLLLGES.QK IKQRKT.LQNAREAALISWK TGTDSN.VDLDFDINNLKWSPP.NS .SLREK.TQAGMEALALSKK TGTDSN.VDLDFPLNNLWSPP.NS .SLREK.TQAGMEALALSKK TGTDSN.VDLDFPLNLKWSPP.NS .SLREK.TEEFKDQALMSKE ATTMTD.APLEVSUGLEYQGF.NR SKKKDN.TIADKEMAFLSQQ ATTNTK.APLEIGLEDTLLKEK.NV ENVREK.TKAHLEDLRLSE SKYRTD.LPLEVDIA.QGREP.DR KRYQTL.HREQAEARFSRG ATTNTK.A.PLEIGLEDTLLKEK.NV ENVREK.TKAHLEDLRLSE SKYRTD.L.PLEVDIA.QGREP.DR KRYQTL.HREQAEARFSRG ATTNTV.V.PVQLDLEAARIGVY.DR LSQ.TN.JSERQETLKLSKR MALDSNI.N.PIPVHESLTFPQHPVDE GXVGEA.LQCLSDLEMSRK JAEHCS.VPLACTKDALFTLQPW.DR KRAREG.TLNNREEALSKR VTTRTD.VPLRIRWEAFHARP.DL GALKTI.DNGKEDAAMSQM AREVVD.VPLVQTSDTLRLQPW.DR KRAREG.TLNNREEALSKR VTTRTD.VPLRIRWEAFHARP.DL QVYTKWKRAPDATETLWDCIKSIGAKAGMEEDIIKQCGMARILRFEEY DREQAKVILTESEYNRYKEN VILLDFD.YPDNIASNIVNYYNSYKLPPR QXYIQM.KMASEELLFRNITMDLTASKTARTD.IELDQNDLTGLKF.T GVYTGWKRAPDATETLWDCIKSIGAKAGMEEDIIKGCGMARILRFEEY CQUGLDTAKKFSFMASTKDATLOT.V.DLAAVGQWLDKF.T QVYIQM.KASAYIKAADRVVYATD.APVTLSTFTDRFFLVAADF KKALQTI.EQGUDTAKKFSFMASTKTD.IKLNDDIVHAALKP.IDK KGLRTK.ULAASAYIKAADRVVYATD.APVTLSTFTDRFFLVAADF

Figure S3



E88K





D10K





E114G

