

atpB	10 20 30 40 50 60 70 80 90 100 MRISPTTSDPGISAFKKKHLGRIVQIIIGPVLDDVVFSPGNMPPNIYNALVVKGRDITGQQINVTCCEVQQLLGNNRVRAVAMSATDGLMRGMEVVDTGAPLSV
atpB-pseudo	MRISPTTSDPGISAFKKKHLGRIVQIIIGPVLDDVVFSPGNMPPNIYNALVVKGRDITGQQINVTCCEVQQLLGNNRVRAVAMSATDGLMRGMEVVDTGAPLSV
atpB	110 120 130 140 150 160 170 180 190 200 PVGGVTLGRIFNVLGEFVDNLGVPDGTGTSPIHRSAPAFIQDITKLSIFETGKIVVDLLAPYRRGGKIGLFGGAGVVKTVLIMELINNIKAHGGVSVFG
atpB-pseudo	PVGGVTLGRICNVLGEFVDNLGVPDGTGTSPIHRSAPAFIQDITKLSILKQ*SS--RSFSPLWRKNRT--IRGAGVVKTVLIMELINNIKAHGGVSVFG
atpB	210 220 230 240 250 260 270 280 290 300 GVGERTRREGNDLYEMEKESGVINEKNIAESKVALVYQGMNEPPGARMRVGLTALTMAEYFRDVENQDVLFFDINIFRFVQAGSEVSALLGRMPSAVGYQP
atpB-pseudo	GVGERTRREGNDLYEMEKESGVINEKNIAE*KVALVYQGMNEPPGARMRVGLTALTMAEYFRDVENQDVLFFDINIFRFVQAGSEVSALLGRMPSAVG*KT
atpB	310 320 330 340 350 360 370 380 390 400 TLSTEMGSL-----QERITSTKESGTSISQAVVYP--ADDLTDPAPATTFPAHLDATTVLSRGLAAKGIY-----PAYDPLDSTSTMLQPRIVGEEH
atpB-pseudo	YF*Y*NGFFTRKKNYFYQRRVYNFYSSCLCTCRREFD*PCACNDIC--AFRCYCTIKRISC--RYLSSSGSFREFNVNAPTSDCW*GT---L*NCSKS*GN
atpB	410 420 430 440 450 460 470 480 490 500 YETAQRVKETLQRYKELQDIIAILGLD-ELSEEDRL---TVARARKIEFFSQPFVFA---EVFTGSPGKYVGLVETIRGFKLILSGELDSLPEQAFY
atpB-pseudo	FTTLQRTSRHYS-YPVWVGRIIRRGSGFNSTSNQNETFFLPTLFRSRFSFYRSRKICWFSRNN*RV*INSLG---GII*S-----S*AGF
atpB	510 520 LVGNIDEATAKAVNLEMESSKSNK*---
atpB-pseudo	LFGR*HRRSYRE-GCELRNGEQIE*MX
atpE	10 20 30 40 50 60 70 80 90 100 MTFNLVCLTPNRIIVDSEVKEIILSTNSGGIIGVLPNAPIATAVDIGILIRLNNE-----WLTMALM-----GGFARIGNNTITILVNDAAEK
atpE-pseudo	MTFNLVCLTILIELFGIPIK*KK-----SSYLLIVDKLAYYQTTLLLLQL*I*GF*EYALTNG*RWL*WAVLLE*VIMRSLF**MMQRRVVTLI-----
atpE	110 120 130 140 150 160 SDIDPQEAQQTLEKAEETNLQKAEGRQTIKANLALRRARTVEAINTIS*
atpE-pseudo	---PKKPNKLLK-----KRRKRI-----CRRKRVRDKQLRQI*LSDELGHE*RLSIQFQX
ndhC	10 20 30 40 50 60 70 80 90 100 MFLLYEYDIFWAFLLISSVIPVFLISGVLATISKGPEKLSSYESGGIEPMGDADWLQFRIRYMFALV-FVVDVEYVFLYWPAMSFDDVGVSVFIEALI
ndhC-pseudo	MFLLYEYDIFWAFLLISSVIPVAFRISGVLATISKGLEKLSSYESGGIEPMGDADWLQFRIRYIIICLL*FLLFLMLKLEFFFIQGP*VLM*WVYPYL*KLS
ndhC	110 120 FVLI--LIVGSVYAWRKGALEWS*--
ndhC-pseudo	FSCLS*LLVQFMHGEKE---HWNGLX
ndhJ	10 20 30 40 50 60 70 80 90 100 MQGRLSAWLKHLVHRSIGFDYQGIEITLQIKSEDWHSIAVILYVYGNYLRSQCAYDVAPGGMLASVYHLTRIEYGVDPQPEEVCIKVFPKSPRIPSV
ndhJ-pseudo	MQGRLSAWLKHLVHRSIGFDYQGIEITLQIKSEDWHSIAVILYVYGNYLRSQCAYDVAPGGMLASVYHLTRI*YGVDPQPEEVCIKVFPKSPRIPSV
ndhJ	110 120 130 140 150 FWVWKSSDFQERESYDMLGIYYDNHPRILKRILMPESWIGWPLRKDYIAPNFYEIQDAH*
ndhJ-pseudo	FWVWKSSDFQERESYDMLGIYYDNHPRILKRILMPESWIGWPLRKDYIAPNFYEIQDAH*
ndhK	10 20 30 40 50 60 70 80 90 100 MVLAPFSDNKKNKVKKKLETVMSNIEFPLVNRRTQNS-----VIST-----TS-----NDLSNWSRLSSWPLLYGTSCCF
ndhK-pseudo	MVLAPFADNKKNKVKKK---A*DSYEFH*VSFS*SNNPKFSYFNYIK*SFQLVKTLQFMATSLRYQLLH*ICFINRLT---IRL*SFWT---GTK---
ndhK	110 120 130 140 150 160 170 180 190 200 IEFASLIGSRFDFFRGLVPRSSPRQADLILTAGTVTKMAPSLVRLYEQMPPEKYVIAMGACTITGGMFSTDSYSTVRGVDKLIPDVVLPGCCPKPEA
ndhK-pseudo	IES*T---SRPNFN-----SGYR-----YDE-----NCSLFS-----E
ndhK	210 220 230 240 250 260 270 280 290 300 IIDALTKLRKISR---EYDDRISRQ---QGNRCFTTNHK--FEVGRSTHTG---NYDQGLLYQSP-----YTSISISLFTFFKY
ndhK-pseudo	II*A--NARTKICYCYGGLYNRGNQAQYRFL*HGSGSG*TNSTRGCLLAGLSTETGGHYICFNKTA*ENFSRNL*R*N*VSTGESVFYQSQV*GWTQYSY
ndhK	310 320 330 KSLVS-----SHELLK*---
ndhK-pseudo	WKL*SRITLSIAIYVRDLS*NIFKIQKFSIFTRIAEVX
rbcl	10 20 30 40 50 60 70 80 90 100 MSPQETKASVGFKAGVKDYKLYTYTPEYETKDTDILAAFRVTPQPGVPEEAGAAVAASSTGTWTTVWTDGLTSLDRYKRCYHIEPVAGEENQYIAY
rbcl-pseudo	MSPQETKASVGFKAGVKDYKLYTYTPEYETKDTDILAAFRVTPQPGVPEEAGAAVAASSTGTWTTVWTDGLTSLDRYKRCYHIEPVAGEENQYIAY
rbcl	110 120 130 140 150 160 170 180 190 200 VAYPLDLFEEGSVTNMFTSIVGNVFGFKALRALRLLEDLRIPVAYVKTFOGPPHGIQVERDKLNKYGRPLLGCTIKPKLGLSAKNYGRAVYECRLRGGLDFT
rbcl-pseudo	VAYPLDLFEEGSVTNMFTSIVGNVFGFKALRALRLLEDLRIPVAYVKTFOGPPHGIQVERDKLNKYGRPLLGCTIKPKLGLSAKNYGRAVYECRLRGGLYFT
rbcl	210 220 230 240 250 260 270 280 290 300 KDDENVNSQPFMRWRDRFLFCAEAIYKQAETGEIKGHYLNATAGTCEEMMKRAVFARELGAPIVMHDYLTGGFTANTSLAHYCRDNGLLHIHRAMHAV
rbcl-pseudo	KDDENVNSQPFMRWGRDRFLFCAEAIYKQAETGEIKGHYLNATAGTCEDMMKRAVFARELGAPIVMHDYLTGGFTANTSLAHYCRDNGLLHIHRAMHAV
rbcl	310 320 330 340 350 360 370 380 390 400 IDRQKNHGIHFVRVLAKALRMSGGDHIHSGTVVGKLEGERDITLGFVDLLRDDFIEKDRSRGIYFTQDQVWSLPGVLPVASGGIHVVHMPALTEIFGDDSVL
rbcl-pseudo	IDRQKNHGIHFVRVLAKALRMSGGDHIHSGTVVGKLEGERDITLGFVDLLRDDFIEKDRSRGIYFTQDQVWSLPGVLPVASGGIHVVHMPALTEIFGDDSVL
rbcl	410 420 430 440 450 460 470 480 QFGGGTLGHWPWGNAPGAVANRVALEACVQARNEGRDLAREGNEITREACKWSPELAAACEVWKEIKFEFEAMDTL*
rbcl-pseudo	QFGGGTLGHWPWGNAPGAVANRVALEACVQARNEGRDLAREGNEITREACKWSPELAAACEVWKEIQDFD-I*DSHFFRIVLRVTRKR*