

P. rodricensis MAQWEMLQNLDS* FQDQLHQLY* TNSLLPVDI RQYLAVWI EDQNWQEAALGKDDSQANMLFFHFDLQKYECGRCSQDPECLLQHNLRKFCRD IQAF 97
P. vamyryus (edited) MAQWEMLQNLDS* FQDQLHQLY* TNSLLPVDI RQYLAVWI EDQNWQEAALGKDDSQANMLFFHFDLQKYECGRCSQDPECLLQHNLRKFCRD IQAF 97
P. vamyryus (unedited) MAQWEMLQNLDS* FQDQLHQLY* TNSLLPVDI RQYLAVWI EDQNWQEAALGKDDSQANMLFFHFDLQKYECGRCSQDPECLLQHNLRKFCRD IQAF 96
Human MAQWEMLQNLDS* FQDQLHQLY* SHSLLPVDI RQYLAVWI EDQNWQEAALGKDDSKATMLFFHFDLQNNYECGRCSQDPECLLQHNLRKFCRD IQAF 97
Panda MAQWEMLQNLDS* FQDQLHQLY* SESLLPMDI RQYLAVWI EDQNWQEAALGNDSSKATVLFHFDLQNNYECGRCSQDPECLLQHNLRKFCRD IQAF 97
Ferret MAQWEMLQNLNPFQDQLHQLYSDSLLPVDI RQYLAVWI EDQNWQEAALGNDSSKATVLFHFDLQNNYECGRCSQDPECLLQHNLRKFCRD IQAF 97
Dog MAQWEMLQNLNPFQDQLHQLYSDSLLPVDI RQYLAVWI EDQNWQEAALGNDSSKATVLFHFDLQNNYECGRCSQDPECLLQHNLRKFCRD IQAF 97
Horse MAQWEMLQNLDS* FQDQLHQLY* SNI LLPMDI RQYLAVWI EDQNWQEAALGNDSSKANMLFFHFDLQNTSECCGRCSQDPECLLQHNLRKFCRD IQAF 97
Pig MAQWEMLQNLDS* FQDQLHQLY* SESLLPVDI RQYLAVWI EDQNWQEAALGNDSSKANMLFFHFDLQNTSECCGRCSQDPECLLQHNLRKFCRD IQAF 97
Cow MAQWEMLQNLDS* FQDQLHQLY* SNI LLPMDI RQYLAVWI EDQNWQEAALGNDSSKANMLFFHFDLQNTSECCGRCSQDSEYFLLQHNLRKFCRD IQAF 97

P. rodricensis PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLRTA* ASDLPHQIR 194
P. vamyryus (edited) PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
P. vamyryus (unedited) PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 193
Human PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
Panda PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
Ferret PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
Dog PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
Horse PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 192
Pig PQGPTQLAEMI FNLLLEEKRI L IQAQAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194
Cow PTGSTRQAEMI FNLLLEEKRI L TWAQRAQLEQGEVFEVPEVSESQPEIESRI ELRVMMKLVKS I SQLKDDQDVF CFYK THTLVRT ASDLPHQIR 194

P. rodricensis QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GSR EDGGLS QLEKWFTDGAKLL FHLRQLL KKLKGLSHLVSYH 291
P. vamyryus (edited) QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GSR EDGGLS QLEKWFTDGAKLL FHLRQLL KKLKGLSHLVSYH 291
P. vamyryus (unedited) QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GSR EDGGLS QLEKWFTDGAKLL FHLRQLL KKLKGLSHLVSYH 290
Human EQK L LQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Panda QRQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Ferret QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Dog QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Horse QQQLLQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Pig QEQV LQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289
Cow QMDI LQETLNELDKRRKEVLDS KALLGR LTTLELLPKLEEWKVVQQKAC I GAP LDAGLE -- QLEKWFTAGAKLL FHLRQLL KKLKGLSHLVSYH 289

P. rodricensis HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 386
P. vamyryus (edited) HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 386
P. vamyryus (unedited) HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 385
Human HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 384
Panda HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 384
Ferret HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 384
Dog HDPLTTGVDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 386
Horse EDPLHKGVLDLQK AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 382
Pig EDPLHKGVLDLQK AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 384
Cow GDPLNKGVLDLRE AQVTELLQRL L RAFVVEVETQPCMPQTPHR PL I LRTGSKFTVTRTL LVR LQEGNETL TAEV I DRNPLQSQG -- FRKFNILTSNRK 386

P. rodricensis TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 483
P. vamyryus (edited) TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 483
P. vamyryus (unedited) TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 474
Human TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 481
Panda TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 481
Ferret TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 483
Dog TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 483
Horse TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 478
Pig TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 476
Cow TLTPKEGQSGL I WDF SYLTLLEQRSGSGKGNKGLLGVTEELH I SFTVKYTYQGLKQELKTD TLPVVI I SNMQLS I AWASVWLFNLLSSNPQN 483

P. rodricensis QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 580
P. vamyryus (edited) QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 580
P. vamyryus (unedited) QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 578
Human QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 571
Panda QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 578
Ferret QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 578
Dog QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 580
Horse QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 575
Pig QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 573
Cow QQFFS SPPKAPWS LLGPALSWQF LSYVGRGLDQDLNMLRDKLFEQSKNEDAL LSWADFTKRES PPGLPFWTWLKD I DLVHDHLKDLWNDGR IM 580

P. rodricensis GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 677
P. vamyryus (edited) GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 677
P. vamyryus (unedited) GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 668
Human GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 675
Panda GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 675
Ferret GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 677
Dog GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 675
Horse GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 672
Pig GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 670
Cow GFVRSQERRLLKKT I SGTFLRRFSETSEGGI TCSWVEHQDDDKVLY I SVQPFTEVQLS LPLTK I I RHYQLL TEEN I PENPLR FLYPR I PRDEAFG 677

P. rodricensis CYYEDKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 766
P. vamyryus (edited) CYYEDKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 766
P. vamyryus (unedited) CYYEDKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 756
Human CYYQEKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 762
Panda RYYQEKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 764
Ferret RYYQEKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 764
Dog CYYQEKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 766
Horse RYYQEKVNLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 757
Pig CYNQEKANLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 767
Cow CYSQEKINLEQRKYLKHKLI I VVSNRQVDELQQLPELNLEPEAES LELYPGLAPEPEPGLGLELEPLL KAGLDLGP LERML ----- EPTPGTV 768

P. rodricensis SQGMS E L N L G P E L K L E P I L G P I S Q P V P E P D L P H D L E H L N T E E M E I F R N S M N I E D I M P N G D P L L A D Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 857
P. vamyryus (edited) SQGMS E L N L G P E L K L E P I L G P I S Q P V P E P D L P H D L E H L N T E E M E I F R N S M N I E D I M P N G D P L L A D Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 857
P. vamyryus (unedited) SQGMS E L N L G P E L K L E P I L G P I S Q P V P E P D L P H D L E H L N T E E M E I F R N S M N I E D I M P N G D P L L A D Q N T V D E A Y I L H P S H F H T E P L I S D Y 836
Human I E P T L C M V S Q T V P -- -- -- -- -- I S Q P V P E P D L P H D L E H L N T E E M E I F R N S M N I E D I M P N G D P L L A D Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 851
Panda -- R R V S E P D V G P E L K L E P I L D P A S Q A V P E P D L P H D L E H L N T E E M E I F R N S M N I E E I M N G D P L F A G Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 854
Ferret -- A C M P E P N V G P E L K L E P I L D P A S Q A V P E P D L P H D L E H L N T E E M E I F R N S M N I E E I M N G D P L F A G Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 853
Dog P Q G V S E P D L G P E L K L E P I L D P A S Q A V P E P D L P H D L E H L N T E E M E I F R N S M N I E E I M P N G D P L L A G Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 857
Horse -- S G V P E P N L G P E L K L E P I L E R I S Q E P V P E P D L P H D L E H L N T E E M E I F R N S M N I E E I M P N G D P L L A G Q N T V D E A Y I L H P S H F H T E G P L I P S D Y 847
Pig L Q G V P E P N L G P E L K L E P I L E P V S Q P V P E P D L P H D L E H L N T E E M E I F R N S M N I E E I M P N G D P L L A S Q N T V D E A C V I L H P S H F H T E G P L I P S D Y 859
Cow S Q G V L E P H P G P Q L Q L E P I P E L E L Q P M P E P D L P D L R H L N T E E M E I F R N S M N I E E I M P N G D P L L A Q N T V D E A D I L H P S H F H T E G P L I P S D Y 859