

# **Comparative study of the binding pockets of mammalian proprotein convertases and its implications for the design of specific small molecule inhibitors**

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CLUSTAL W 2.0 multiple sequence alignment

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PC1_human|116242674 -----
PC1_dog|73952024 -----
PC1_cow|27806045 -----
PC1_rat|8393919 -----
PC1_mouse|7305371 -----
PC2_human|13124785 -----
PC2_dog|73991491 -----
PC2_rat|128004 -----
PC2_mouse|128003 -----
PC2_cow|27806047 -----
PACE4_rat|6981328 -----MP
PACE4_mouse|51749605 -----MP
PACE4_human|129542 -----MP
PACE4_dog|73951182 MVPDRPTLLLSQPQLPASAKLRIHILRTLAAASMRARAALILHGCPHSLSIKRRAKKGMP
PACE4_cow|76646745 -----MP
PC5_human|12643790 -----
PC5_cow|76624435 -----
PC5_rat|42632407 -----
PC5_mouse|220566 -----
PC5_dog|73946768 -----
Furin_human|120611 -----
Furin_dog|73951249 -----
Furin_cow|27806495 -----
Furin_rat|120613 -----
Furin_mouse|120612 -----
PC4_dog|73987552 -----
PC4_cow|76622897 -----
PC4_human|74749381 -----
PC4_rat_1|118600946 -----
PC4_rat_2|19424240 -----
PC4_mouse|33469095 -----
PC7_human|12643731 -----
PC7_dog|73954713 -----
PC7_cow|76635181 -----
PC7_rat|9506957 -----
PC7_mouse|112181190 -----

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PC1_human|116242674 -----
PC1_dog|73952024 -----
PC1_cow|27806045 -----
PC1_rat|8393919 -----
PC1_mouse|7305371 -----
PC2_human|13124785 -----
PC2_dog|73991491 -----
PC2_rat|128004 -----
PC2_mouse|128003 -----
PC2_cow|27806047 -----
PACE4_rat|6981328 P-----RAPPAPGPR---PPPR-----
PACE4_mouse|51749605 P-----RAPPAPGPR---PPPRAADV-----
PACE4_human|129542 P-----RAPPAPGPR---PPPRAAAATDTAAGAG
PACE4_dog|73951182 QEEVVKVKLPGPEWLQVGVVFSLMAGQEEQERAPAGEGHEGCVPECRCHPLGCKDLKWS
PACE4_cow|76646745 LG-----SQASAVLSAG---HWALCFVG-----
PC5_human|12643790 -----MDWESR-----
PC5_cow|76624435 -----MGWGSR-----
PC5_rat|42632407 -----MDWGWGSR-----
PC5_mouse|220566 -----MDWDWGNR-----
PC5_dog|73946768 -----MNES-----
Furin_human|120611 -----
Furin_dog|73951249 -----
Furin_cow|27806495 -----
Furin_rat|120613 -----
Furin_mouse|120612 -----
PC4_dog|73987552 -----
PC4_cow|76622897 -----
PC4_human|74749381 -----
PC4_rat_1|118600946 -----

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PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----MERRA-----W  
PC1\_dog|73952024 -----MERRA-----W  
PC1\_cow|27806045 -----MGRRA-----W  
PC1\_rat|8393919 -----MKQRG-----W  
PC1\_mouse|7305371 -----MEQRG-----W  
PC2\_human|13124785 -----MKGG-----C  
PC2\_dog|73991491 -----MKGG-----R  
PC2\_rat|128004 -----MEGG-----C  
PC2\_mouse|128003 -----MEGG-----C  
PC2\_cow|27806047 -----MRGG-----C  
PACE4\_rat|6981328 -----AAGRHG-----  
PACE4\_mouse|51749605 -----ARGAGAAGRHG-----  
PACE4\_human|129542 GAGGAGGAGGPG-----  
PACE4\_dog|73951182 KETEPQGTSKPGSQVGVSEKADEGHSMFKGLETVMMLRRKIKMREPRIYRKVI IETEKEM  
PACE4\_cow|76646745 -----TSVHTHG-----L  
PC5\_human|12643790 -----CCCPG-----  
PC5\_cow|76624435 -----CCCPG-----  
PC5\_rat|42632407 -----CCRPG-----  
PC5\_mouse|220566 -----CSRPG-----  
PC5\_dog|73946768 -----SGRSA-----  
Furin\_human|120611 -----MELR-----  
Furin\_dog|73951249 -----MELR-----  
Furin\_cow|27806495 -----MELR-----  
Furin\_rat|120613 -----MELR-----  
Furin\_mouse|120612 -----MELR-----  
PC4\_dog|73987552 -----MRPA-----  
PC4\_cow|76622897 -----MRPA-----  
PC4\_human|74749381 -----MRPA-----  
PC4\_rat\_1|118600946 -----MRPS-----  
PC4\_rat\_2|19424240 -----MRPS-----  
PC4\_mouse|33469095 -----MRPS-----  
PC7\_human|12643731 -----MPKGRQK-----VPHL  
PC7\_dog|73954713 -----MPKGRQK-----VPHS  
PC7\_cow|76635181 -----MPKGRQK-----VPHS  
PC7\_rat|9506957 -----MPKGRQK-----VPERL  
PC7\_mouse|112181190 -----MPKGRQK-----VPHL

PC1\_human|116242674 SLQCTAFVLFCAWC-----  
PC1\_dog|73952024 TLQCTAFALFCAWC-----  
PC1\_cow|27806045 TLQCTAFSLFCAWC-----  
PC1\_rat|8393919 TLQCTAFTLFCVWC-----  
PC1\_mouse|7305371 TLQCTAFAFFCVWC-----  
PC2\_human|13124785 VSQWKAAGFLFCV-----  
PC2\_dog|73991491 VSQWKAAGLLFCV-----  
PC2\_rat|128004 GSQWKAAG-LLFCV-----  
PC2\_mouse|128003 GSQWKAAG-FLFCV-----  
PC2\_cow|27806047 ISQGKAAAGLLFCV-----  
PACE4\_rat|6981328 LSPLAPRPWRWLLL-----LALP-----  
PACE4\_mouse|51749605 LPPLALRPWRWLLL-----LALP-----  
PACE4\_human|129542 FRPLAPRPWRWLLL-----LALP-----  
PACE4\_dog|73951182 VDPGLGARPAAFLEQPLAANRSLVLPNLGQGSPALSEDESEDESEAPEITACEFEALPL  
PACE4\_cow|76646745 AAPGDEVWWSCLSG-----AEP-----  
PC5\_human|12643790 -RLDLLCVLALLGG-----  
PC5\_cow|76624435 -RLDLLCVLALLGG-----  
PC5\_rat|42632407 -RRDLLCVLALLAG-----  
PC5\_mouse|220566 -RRDLLCVLALLAG-----  
PC5\_dog|73946768 -RTDLEISAAFREG-----  
Furin\_human|120611 --PWLWVVAATGT-----  
Furin\_dog|73951249 --PWLWVVAAGA-----  
Furin\_cow|27806495 --PWLFWVVAAGA-----  
Furin\_rat|120613 --PWLWVVAAGA-----

Furin\_mouse|120612 --SWLLWVVAAGA-----  
PC4\_dog|73987552 --RTALWLRALALGL-----A  
PC4\_cow|76622897 --RTALCLRLLALGL-----A  
PC4\_human|74749381 --PIALWLRLLVLA-----A  
PC4\_rat\_1|118600946 --QTALWLGVLVLSL-----  
PC4\_rat\_2|19424240 --QTALWLGVLVLSL-----  
PC4\_mouse|33469095 --QTELWLGTLTL-----  
PC7\_human|12643731 DAPLGLPTCLWLELAG-----LF  
PC7\_dog|73954713 DAPLGLPTHWLELAG-----LF  
PC7\_cow|76635181 DAPLGLPTGLWLELAG-----LF  
PC7\_rat|9506957 DARLGLPICLCLELA-----IF  
PC7\_mouse|112181190 DAHLGLPICLWLELA-----IF

PC1\_human|116242674 -----ALNSAKAKR-----QFVNEWAAEIP-----  
PC1\_dog|73952024 -----ALNSVKAKR-----QFVNEWAAEIP-----  
PC1\_cow|27806045 -----AMNSVKAKK-----QFVNEWAAEIP-----  
PC1\_rat|8393919 -----ALNSVKAKR-----QFVNEWAAEIH-----  
PC1\_mouse|7305371 -----ALNSVKAKR-----QFVNEWAAEIP-----  
PC2\_human|13124785 -----MVFASAERP-----VFTNHFLVELHK-----  
PC2\_dog|73991491 -----MVFASAERP-----VLTNHFLVELHQ-----  
PC2\_rat|128004 -----MVFASAERP-----VFTNHFLVELHK-----  
PC2\_mouse|128003 -----MVFASAERP-----VFTNHFLVELHK-----  
PC2\_cow|27806047 -----MVFASAERP-----VFTNHFLVELHR-----  
PACE4\_rat|6981328 -----AVCSALPPP-----RPVYTNHWAVQ-----  
PACE4\_mouse|51749605 -----AACSALPPP-----RPVYTNHWAVQ-----  
PACE4\_human|129542 -----AACSAPP-----RPVYTNHWAVQ-----  
PACE4\_dog|73951182 CSEPRAMCTADLGAERKFRPQLVLQAAALQDQSKSCHFTDGGGVTPGQREDTHSFTQSLP  
PACE4\_cow|76646745 -----SAQGNLCLAD-----MPTLIQTVFVK-----  
PC5\_human|12643790 -----CLLPVCRTR-----VYTNHWAVK-----  
PC5\_cow|76624435 -----CLLPVCRTR-----VYTNHWAVK-----  
PC5\_rat|42632407 -----CLLPVCRTR-----VYTNHWAVK-----  
PC5\_mouse|220566 -----CLLPVCRTR-----VYTNHWAVK-----  
PC5\_dog|73946768 -----AVNRFQRKE-----ERKRRRQSR-----  
Furin\_human|120611 ---LVLLAADAQGQ-----KVFTNTWAVR-----  
Furin\_dog|73951249 ---LVLLAADARGQ-----KVYTNWAVH-----  
Furin\_cow|27806495 ---LVLLVADARGE-----KVFTNTWAVH-----  
Furin\_rat|120613 ---LVLLAAEARGQ-----KIFTNTWAVH-----  
Furin\_mouse|120612 ---VLLAADAQGQ-----KIFTNTWAVH-----  
PC4\_dog|73987552 LVGPLPVGWSSARA-----PIYVSSWAVR-----  
PC4\_cow|76622897 LVGPMVWASARA-----PIYVSSWAVR-----  
PC4\_human|74749381 LVRPRAVGWAPVRA-----PIYVSSWAVQ-----  
PC4\_rat\_1|118600946 --ALLAVGWASARP-----PIYVSSWAVR-----  
PC4\_rat\_2|19424240 --ALLAVGWASARP-----PIYVSSWAVR-----  
PC4\_mouse|33469095 --ALLAVRWASAQA-----PIYVSSWAVR-----  
PC7\_human|12643731 LLVPWVMGLAGTGGPDG--QGTGGASWAVHLES-----  
PC7\_dog|73954713 LLVPWVMGLAETDRPGA--QGPGLSWAVHLDL-----  
PC7\_cow|76635181 LLLPWVMGLVGAGGPRA--QGPRLSWAVRLDGP-----  
PC7\_rat|9506957 FLVPQVMGLTEAGGLDT--LGAGGLSWAVHLDL-----  
PC7\_mouse|112181190 FLVPQVMGLSEAGGLDI--LGTGGLSWAVHLDL-----

PC1\_human|116242674 -----GGP-----  
PC1\_dog|73952024 -----GGP-----  
PC1\_cow|27806045 -----GGP-----  
PC1\_rat|8393919 -----GGP-----  
PC1\_mouse|7305371 -----GGQ-----  
PC2\_human|13124785 -----GGE-----  
PC2\_dog|73991491 -----GGE-----  
PC2\_rat|128004 -----DGE-----  
PC2\_mouse|128003 -----DGE-----  
PC2\_cow|27806047 -----GGE-----  
PACE4\_rat|6981328 -----VLGGP-----  
PACE4\_mouse|51749605 -----VLGGP-----  
PACE4\_human|129542 -----VLGGP-----  
PACE4\_dog|73951182 GALIGVGPSEIRDVPASQEPLGGGETCVDASCVHSTRISFLPTRGWGPEYPPSVISAD  
PACE4\_cow|76646745 -----CSPG-----  
PC5\_human|12643790 -----IAGGF-----  
PC5\_cow|76624435 -----ISGGF-----  
PC5\_rat|42632407 -----IAGGF-----  
PC5\_mouse|220566 -----IAGGF-----

PC5\_dog|73946768 -----GAGAP  
Furin\_human|120611 -----IPGGP  
Furin\_dog|73951249 -----IPGGP  
Furin\_cow|27806495 -----IPGGP  
Furin\_rat|120613 -----ISGGP  
Furin\_mouse|120612 -----IPGGP  
PC4\_dog|73987552 -----VSQGY  
PC4\_cow|76622897 -----VSQGY  
PC4\_human|74749381 -----VSQGN  
PC4\_rat\_1|118600946 -----VTKGY  
PC4\_rat\_2|19424240 -----VTKGY  
PC4\_mouse|33469095 -----VTKGY  
PC7\_human|12643731 -----EGDGEEETLE  
PC7\_dog|73954713 -----EGEGQEETLE  
PC7\_cow|76635181 -----EGEGAEEESLE  
PC7\_rat|9506957 -----EGERKEESLI  
PC7\_mouse|112181190 -----EGERKEESLT

PC1\_human|116242674 EAASAI AEELGYDLLG-----  
PC1\_dog|73952024 EAASAI AEELGYDLLG-----  
PC1\_cow|27806045 EAASAI AQELGYDLLG-----  
PC1\_rat|8393919 EAASAI AEELGYDLLG-----  
PC1\_mouse|7305371 EAASAI AEELGYDLLG-----  
PC2\_human|13124785 DKARQVAAEHGFGVR-----  
PC2\_dog|73991491 EEARQVAAEHGFGVR-----  
PC2\_rat|128004 EEARQVAAEHGFGVR-----  
PC2\_mouse|128003 EEARQVAAEHGFGVR-----  
PC2\_cow|27806047 EKARQVAAEHGFGVR-----  
PACE4\_rat|6981328 GAADRVA AAHGYLN-----  
PACE4\_mouse|51749605 GAADRVA AAHGYLN-----  
PACE4\_human|129542 AEADRVA AAHGYLN-----  
PACE4\_dog|73951182 SPGPRVHV RKGYREPMPD LATELEVGF SNWLVD SLRLV GESGL ECWLH LLSGAPP NASV  
PACE4\_cow|76646745 CWALRVK GKAPLEEP-----  
PC5\_human|12643790 PEANRIASKYGFIN-----  
PC5\_cow|76624435 PEANRIASKYGFIN-----  
PC5\_rat|42632407 AEADRIASKYGFIN-----  
PC5\_mouse|220566 AEADRIASKYGFIN-----  
PC5\_dog|73946768 LAALCKK SRLGRPG-----  
Furin\_human|120611 AVANSVARKHGFLN-----  
Furin\_dog|73951249 AVADSLARKHGFLN-----  
Furin\_cow|27806495 AVADRVAR KHGFLN-----  
Furin\_rat|120613 AVADSVARKHG FHN-----  
Furin\_mouse|120612 AVADRVAQKHG FHN-----  
PC4\_dog|73987552 REAERLARKFGFVY-----  
PC4\_cow|76622897 QEVDR LARKFGFVN-----  
PC4\_human|74749381 REVERLARKFGFVN-----  
PC4\_rat\_1|118600946 QEAERLARKFGFVN-----  
PC4\_rat\_2|19424240 QEAERLARKFGFVN-----  
PC4\_mouse|33469095 QEAERLARKFGFVN-----  
PC7\_human|12643731 QQADALAQ AAGLVNAG-----  
PC7\_dog|73954713 QQADALAQ AAGLVNAG-----  
PC7\_cow|76635181 RRADALAQ ATGLMNAG-----  
PC7\_rat|9506957 QQANAVAQA AGLVNAG-----  
PC7\_mouse|112181190 QQADAVAQA AGLVNAG-----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----LG-----  
PACE4\_mouse|51749605 -----LG-----  
PACE4\_human|129542 -----LG-----  
PACE4\_dog|73951182 TGA EVPSTLSDMAEESV LQQGQSLQSCGSMETRGLQMLLHHQIHTPQSLLP T AKQWSSQE

PACE4\_cow|76646745 -----LVGG-----  
PC5\_human|12643790 -----IG-----  
PC5\_cow|76624435 -----IG-----  
PC5\_rat|42632407 -----VG-----  
PC5\_mouse|220566 -----VG-----  
PC5\_dog|73946768 -----PL-----  
Furin\_human|120611 -----LG-----  
Furin\_dog|73951249 -----LG-----  
Furin\_cow|27806495 -----LG-----  
Furin\_rat|120613 -----LG-----  
Furin\_mouse|120612 -----LG-----  
PC4\_dog|73987552 -----LG-----  
PC4\_cow|76622897 -----FG-----  
PC4\_human|74749381 -----LG-----  
PC4\_rat\_1|118600946 -----LG-----  
PC4\_rat\_2|19424240 -----LG-----  
PC4\_mouse|33469095 -----LG-----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 ----QIGSLENHYLFKHKHNHPRRSR---RSALHITKRLSDDDRVIWAEQQYEKERSKRS  
PC1\_dog|73952024 ----QIGSLENHYLFKHKHNHPRRSR---RSALHITKRLSDDDRVIWAEQQYEKERSKRSV  
PC1\_cow|27806045 ----QIGSLENHYLFKHKHNHPRRSR---RSALHITKRLSDDDRVIWAEQQYEKERSKRSV  
PC1\_rat|8393919 ----QIGSLENHYLFKHKHNHPRRSR---RSALHITKRLSDDDRVIWAEQQYEKERSKRSV  
PC1\_mouse|7305371 ----QIGSLENHYLFKHKSHPRRSR---RSALHITKRLSDDDRVTWAEQQYEKERSKRSV  
PC2\_human|13124785 ----KLPFAEGLYHFYHNGLAKAKR---RRSLHHKQQLERDPRVKMALQQEGFDRKKRGY  
PC2\_dog|73991491 ----KLPFAEGLYHFYHNGLAKAKR---RRSLHHKQQLERDPRVKMALQQEGFDRKKRGY  
PC2\_rat|128004 ----KLPFAEGLYHFYHNGLAKAKR---RRSLHHKQQLERDPRVKMALQQEGFDRKKRGY  
PC2\_mouse|128003 ----KLPFAEGLYHFYHNGLAKAKR---RRSLHHKQQLERDPRVKMALQQEGFDRKKRGY  
PC2\_cow|27806047 ----KLPFAEGLYHFYHNGLAKAKR---RRSLHHKQQLERDPRVKMALQQEGFDRKKRGY  
PACE4\_rat|6981328 ----QIGNLDDYYHFYHSKTFKRST---LSSRGPHFTFLRMDPQVQWVQQQEVKRRVVKRQA  
PACE4\_mouse|51749605 ----QIGNLDDYYHFYHSKTFKRST---LSSRGPHFTFLRMDPQVQWVQQQEVKRRVVKRQA  
PACE4\_human|129542 ----QIGNLEDYYHFYHSKTFKRST---LSSRGPHFTFLRMDPQVQWVQQQEVKRRVVKRQV  
PACE4\_dog|73951182 SVLFRIGNLEDYYHFYHSKTFKRST---WSSRGPHFTFLRMDPQVQWVQQQEVKRRVVKRQV  
PACE4\_cow|76646745 ----RIGNLDDYYHFYHSKTFKRST---LSSRGPHFTFLRMDPQVQWVQQQEVKRRVVKRQV  
PC5\_human|12643790 ----QIGALKDYHFYHSRTIKRSV---ISSRGTHSFISMEPKVWEIQQQVVKRTRKRDY  
PC5\_cow|76624435 ----QIGALKDYHFYHSRTIKRSV---LSSRGTHSFISMEPKVWEIQQQVVKRTRKRDY  
PC5\_rat|42632407 ----QIGALKDYHFYHSRTIKRSV---LSSRGTHSFISMEPKVWEIQQQVVKRTRKRDY  
PC5\_mouse|220566 ----QIGALKDYHFYHSRTIKRSV---LSSRGTHSFISMEPKVWEIQQQVVKRTRKRDY  
PC5\_dog|73946768 ----QIGALKDYHFYHSRTIKRSV---LSSRGTHSFISMEPKVWEIQQQVVKRTRKRDY  
Furin\_human|120611 ----QIFGD---YYHFWRHRAVTKRSL---SPHRPRHSRLQREPVQVWLEQQVAKRRTRKRDV  
Furin\_dog|73951249 ----QIFGD---YYHFWRHRAVTKRSL---SPHRPRHSRLQREPVQVWLEQQVAKRRTRKRDV  
Furin\_cow|27806495 ----QIFGD---YYHFWRHRAVTKRSL---SPHRPRHSRLQREPVQVWLEQQVAKRRTRKRDV  
Furin\_rat|120613 ----QIFGD---YYHFWRHRAVTKRSL---SPHRPRHSRLQREPVQVWLEQQVAKRRTRKRDV  
Furin\_mouse|120612 ----QIFGD---YYHFWRHRAVTKRSL---SPHRPRHSRLQREPVQVWLEQQVAKRRTRKRDV  
PC4\_dog|73987552 ----QIFPDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC4\_cow|76622897 ----QIFPDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC4\_human|74749381 ----QIFSDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC4\_rat\_1|118600946 ----QIFPDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC4\_rat\_2|19424240 ----QIFPDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC4\_mouse|33469095 ----QIFPDGQYFHLRHRGVAQQSL---TPHWGHRRLKLDKPKVQVWFQQQTLRRRVKR-S  
PC7\_human|12643731 ----RIGELQGHYLFVQVQAGHRPALEVEPIRQQVEAVLAGHEAVRWHSQRLLRKRAKRSV  
PC7\_dog|73954713 ----RIGELQGHYLFVQVQAGHRPALEVEPIRQQVEAVLAGHEAVRWHSQRLLRKRAKRSV  
PC7\_cow|76635181 ----RIGELQGHYLFVQVQAGHRPALEVEPIRQQVEAVLAGHEAVRWHSQRLLRKRAKRSV  
PC7\_rat|9506957 ----RIGELQGHYLFVQVQAGHRPALEVEPIRQQVEAVLAGHEAVRWHSQRLLRKRAKRSV  
PC7\_mouse|112181190 ----RIGELQGHYLFVQVQAGHRPALEVEPIRQQVEAVLAGHEAVRWHSQRLLRKRAKRSV

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PC1\_human|116242674 LRDSALNL-FNDPMWNQQWYLQDTRMTAALPKLDLHVIPVWQKGITGKGVVITVLDGDL  
PC1\_dog|73952024 LRDSALNL-FNDPMWNQQWYLQDTRMTAALPKLDLHVIPVWQKGITGKGVVITVLDGDL  
PC1\_cow|27806045 LRDSALDL-FNDPMWNQQWYLQDTRMTATLPLKLDLHVIPVWQKGITGKGVVITVLDGDL  
PC1\_rat|8393919 PRDSALNL-FNDPMWNQQWYLQDTRMTASLPLKLDLHVIPVWQKGITGKGVVITVLDGDL  
PC1\_mouse|7305371 QKDSALDL-FNDPMWNQQWYLQDTRMTAALPKLDLHVIPVWEKGITGKGVVITVLDGDL  
PC2\_human|13124785 RDINEIDINMNDPLFTKQWYLFNTGQADGTPGLDLNVAEAWELGYTGKGVITIGIMDDGID  
PC2\_dog|73991491 RDINEIDINMNDPLFTKQWYLFNTGQADGTPGLDLNVAEAWELGYTGKGVITIGIMDDGID  
PC2\_rat|128004 RDINEIDINMNDPLFTKQWYLFNTGQADGTPGLDLNVAEAWELGYTGKGVITIGIMDDGID  
PC2\_mouse|128003 RDINEIDINMNDPLFTKQWYLFNTGQADGTPGLDLNVAEAWELGYTGKGVITIGIMDDGID





PC1\_human|116242674 LATSYSGGD--YTDQRITSADLHN--DCTETHTGTSASAPLAAGIFALALEANPNLTWRD  
PC1\_dog|73952024 LATSYSGGD--YTDQRITSADLHN--DCTETHTGTSASAPLAAGIFALALEANPNLTWRD  
PC1\_cow|27806045 LATSYSGGD--YTDQRITSADLHN--DCTETHTGTSASAPLAAGIFALALEANPNLTWRD  
PC1\_rat|8393919 LATSYSGGD--YTDQRITSADLHN--DCTETHTGTSASAPLAAGIFALALEANPNLTWRD  
PC1\_mouse|7305371 LATSYSGGD--YTDQRITSADLHN--DCTETHTGTSASAPLAAGIFALALEANPNLTWRD  
PC2\_human|13124785 LASTFSNGRKRNP EAGVATTDLYG--NCTLRHSGTSAAPAEAGVFALALEANLGLTWRD  
PC2\_dog|73991491 LASTFSNGRKRNP EAGVATTDLYG--NCTLRHSGTSAAPAEAGVFALALEANLGLTWRD  
PC2\_rat|128004 LASTFSNGRKRNP EAGVATTDLYG--NCTLRHSGTSAAPAEAGVFALALEANLGLTWRD  
PC2\_mouse|128003 LASTFSNGRKRNP EAGVATTDLYG--NCTLRHSGTSAAPAEAGVFALALEANLGLTWRD  
PC2\_cow|27806047 LASTFSNGRKRNP EAGVATTDLYG--NCTLRHSGTSAAPAEAGVFALALEANLGLTWRD  
PACE4\_rat|6981328 LATTYSSGA--FYERKIVTTDLRQ--RCTDGHTGTSVSAPMVAGI IALALEANNQLTWRD  
PACE4\_mouse|51749605 LATTYSSGA--FYERKIVTTDLRQ--RCTDGHTGTSVSAPMVAGI IALALEANNQLTWRD  
PACE4\_human|129542 LATTYSSGA--FYERKIVTTDLRQ--RCTDGHTGTSVSAPMVAGI IALALEANSQLTWRD  
PACE4\_dog|73951182 LATTYSSGA--FYERKIVTTDLRQ--RCTDGHTGTSVSAPMVAGI IALALEANSQLTWRD  
PACE4\_cow|76646745 LATTYSSGA--FYERRIVTTDLRQ--RCTDGHTGTSVSAPMVAGI IALALEANSQLTWRD  
PC5\_human|12643790 LATTYSSGE--SYDKKIIITDRLQ--RCTDNHTGTSASAPMAAGI IALALEANPFLTWRD  
PC5\_cow|76624435 LATTYSSGE--SYDKKIIITDRLQ--RCTDNHTGTSASAPMAAGI IALALEANPFLTWRD  
PC5\_rat|42632407 LATTYSSGE--SYDKKIIITDRLQ--RCTDNHTGTSASAPMAAGI IALALEANPFLTWRD  
PC5\_mouse|220566 LATTYSSGE--SYDKKIIITDRLQ--RCTDNHTGTSASAPMAAGI IALALEANPFLTWRD  
PC5\_dog|73946768 LATTYSSGE--SYDKKIIITDRLQ--RCTDNHTGTSASAPMAAGI IALALEANPFLTWRD  
Furin\_human|120611 LATYSSGN--QNEKQIVTTDLRQ--KCTESHTGTSASAPLAAGI IALTLEANKNLTWRD  
Furin\_dog|73951249 LATYSSGN--QNEKQIVTTDLRQ--KCTESHTGTSASAPLAAGI IALTLEANKNLTWRD  
Furin\_cow|27806495 LATYSSGN--QNEKQIVTTDLRQ--KCTESHTGTSASAPLAAGI IALTLEANKNLTWRD  
Furin\_rat|120613 LATYSSGN--QNEKQIVTTDLRQ--KCTESHTGTSASAPLAAGI IALTLEANKNLTWRD  
Furin\_mouse|120612 LATYSSGN--QNEKQIVTTDLRQ--KCTESHTGTSASAPLAAGI IALTLEANKNLTWRD  
PC4\_dog|73987552 LTTYSSGV--ATDPQIVTTDLHH--QCTDKHTGTSASAPLAAGMIALALEANPFLTWRD  
PC4\_cow|76622897 LTTYSSGV--ATDPQIVTTDLHH--QCTDKHTGTSASAPLAAGMIALALEANPFLTWRD  
PC4\_human|74749381 LTTYSSGV--ATDPQIVTTDLHH--GCTDQHTGTSASAPLAAGMIALALEANPFLTWRD  
PC4\_rat\_1|118600946 FTTTFSSGV--VTDQIVTTDLHH--QCTDKHTGTSASAPLAAGMIALALEANPFLTWRD  
PC4\_rat\_2|19424240 FTTTFSSGV--VTDQIVTTDLHH--QCTDKHTGTSASAPLAAGMIALALEANPFLTWRD  
PC4\_mouse|33469095 FTTTFSSGV--VTDQIVTTDLHH--QCTDKHTGTSASAPLAAGMIALALEANPFLTWRD  
PC7\_human|12643731 LAVTFSSGDKMLRSIVTTDWDLQKGTGCTEGHTGTSAAAPLAAGMIALMLQVRPCLTWRD  
PC7\_dog|73954713 LAVTFSSGDKMLRSIVTTDWDLQKGTGCTEGHTGTSAAAPLAAGMIALMLQVRPCLTWRD  
PC7\_cow|76635181 LAVTFSSGDKMLRSIVTTDWDLQKGTGCTEGHTGTSAAAPLAAGMIALMLQVRPCLTWRD  
PC7\_rat|9506957 LAVTFSSGDKMLRSIVTTDWDLQKGTGCTEGHTGTSAAAPLAAGMIALMLQVRPCLTWRD  
PC7\_mouse|112181190 LAVTFSSGDKMLRSIVTTDWDLQKGTGCTEGHTGTSAAAPLAAGMIALMLQVRPCLTWRD

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PC1\_human|116242674 MQHLVVWTSEYDPLANNP--GWKKNAGGLMVNSRFGFGLLNAKALVDLADPRTWRSVPEKK  
PC1\_dog|73952024 MQHLVVWTSEYDPLANNP--GWKKNAGGLMVNSRFGFGLLNAKALVDLADPRTWTSVPEKK  
PC1\_cow|27806045 MQHLVVWTSEYDPLANNP--GWKKNAGGLMVNSRFGFGLLNAKALVDLADPSTWRSVPEKK  
PC1\_rat|8393919 MQHLVVWTSEYDPLANNP--GWKKNAGGLMVNSRFGFGLLNAKALVDLADPRTWRNVPEKK  
PC1\_mouse|7305371 MQHLVVWTSEYDPLANNP--GWKKNAGGLMVNSRFGFGLLNAKALVDLADPRTWRNVPEKK  
PC2\_human|13124785 MQHLTVLTSKRNLQHDVHQWRRNGVGLFNFHFGYGVLDAGAMVKMAK--DWKTVPERF  
PC2\_dog|73991491 MQHLTVLTSKRNLQHDVHQWRRNGVGLFNFHFGYGVLDAGAMVKMAK--DWKTVPERF  
PC2\_rat|128004 MQHLTVLTSKRNLQHDVHQWRRNGVGLFNFHFGYGVLDAGAMVKMAK--DWKTVPERF  
PC2\_mouse|128003 MQHLTVLTSKRNLQHDVHQWRRNGVGLFNFHFGYGVLDAGAMVKMAK--DWKTVPERF  
PC2\_cow|27806047 MQHLTVLTSKRNLQHDVHQWRRNGVGLFNFHFGYGVLDAGAMVKMAK--DWKTVPERF  
PACE4\_rat|6981328 VQHLLVKTSRPAHLKASD--WKVNGAGHKVSHLYGFGLVDAEALVLEAR--KWTAVPSQH  
PACE4\_mouse|51749605 VQHLLVKTSRPAHLKASD--WKVNGAGHKVSHLYGFGLVDAEALVLEAR--KWTAVPSQH  
PACE4\_human|129542 VQHLLVKTSRPAHLKAND--WKVNGAGHKVSHLYGFGLVDAEALVMEAK--KWTAVPTQH  
PACE4\_dog|73951182 VQHLLVKTSRPAHLKAND--WKVNGAGHKVSHLYGFGLVDAEALVVEAK--KWMVAPPQH  
PACE4\_cow|76646745 VQHLLVKTSRPAHLKAND--WKVNGAGHKVSHLYGFGLVDAEALVVEAK--KWMVAPPQH  
PC5\_human|12643790 VQHIVVRTSRAGHLNAND--WKTNAAGFKVSHLYGFGLMDAEAMVMEAE--KWTTPVQQH  
PC5\_cow|76624435 VQHIVVRTSRAGHLNAND--WKTNAAGFKVSHLYGFGLMDAEAMVMEAE--KWTTPVQQH  
PC5\_rat|42632407 VQHIVVRTSRAGHLNAND--WKTNAAGFKVSHLYGFGLMDAEAMVMEAE--KWTTPVQQH  
PC5\_mouse|220566 VQHIVVRTSRAGHLNAND--WKTNAAGFKVSHLYGFGLMDAEAMVMEAE--KWTTPVQQH  
PC5\_dog|73946768 VQHIVVRTSRAGHLNAND--WKTNAAGFKVSHLYGFGLMDAEAMVMEAE--KWTTPVQQH  
Furin\_human|120611 MQHLVVQTSKPAHLNAND--WATNGVGRKVS SHSYGYGLLDAGAMVTLA--NWTTPVPRG  
Furin\_dog|73951249 MQHLVVQTSKPAHLNAND--WATNGVGRKVS SHSYGYGLLDAGAMVTLA--NWTTPVPRG  
Furin\_cow|27806495 MQHLVVQTSKPAHLNAND--WATNGVGRKVS SHSYGYGLLDAGAMVTLA--NWTTPVPRG  
Furin\_rat|120613 MQHLVVQTSKPAHLNAND--WATNGVGRKVS SHSYGYGLLDAGAMVTLA--NWTTPVPRG  
Furin\_mouse|120612 MQHLVVQTSKPAHLNADD--WATNGVGRKVS SHSYGYGLLDAGAMVTLA--NWTTPVPRG  
PC4\_dog|73987552 MQHLVVRASRPAQLQAED--WRTNGVGRQVSHHYGYGLLDARLLVDMAR--TWLPTQPQQ  
PC4\_cow|76622897 MQHLVVRASRPAQLQAED--WRTNGVGRQVSHHYGYGLLDARLLVDMAR--TWLPTQPQQ  
PC4\_human|74749381 MQHLVVRASRPAQLQAED--WRTNGVGRQVSHHYGYGLLDARLLVDMAR--TWLPTQPQQ  
PC4\_rat\_1|118600946 LQHLVVRASRPAQLQAED--WRINGVGRQVSHHYGYGLLDAGLLVDLAR--VWLPTKPKQK  
PC4\_rat\_2|19424240 LQHLVVRASRPAQLQAED--WRINGVGRQVSHHYGYGLLDAGLLVDLAR--VWLPTKPKQK  
PC4\_mouse|33469095 LQHLVVRASRPAQLQAED--WRINGVGRQVSHHYGYGLLDAGLLVDLAR--VWLPTKPKQK  
PC7\_human|12643731 VQHIIVFTATRYEDRRAE--WVTNEAGFSSHQHGFLNNAWRLVNAAK--IWTSPVYLA



PC4\_human|74749381 RGDLEISLTPSPMGRSTLVAIRPL-DVSTEGYNNWVFMSTHFWDENPQGVWTLGLENKGY  
PC4\_rat\_1|118600946 RGDLEIFLTPSPMGRSTLVAIRPL-DISGQGYNNWIFMSTHYWDEDPQGLWTLGLENKGY  
PC4\_rat\_2|19424240 RGDLEIFLTPSPMGRSTLVAIRPL-DISGQGYNNWIFMSTHYWDEDPQGLWTLGLENKGY  
PC4\_mouse|33469095 RGDLEIFLTPSPMGRSTLVAIRPL-DISGQGYNNWIFMSTHYWDEDPQGLWTLGLENKGY  
PC7\_human|12643731 RGSLELKLFCPSGMMSLIGAPRSM-DSDPNGFNDWTFSTVRCWGERARGTYRLVIRDVGD  
PC7\_dog|73954713 RGSLELKLFCPSGMMSLIGAPRSM-DSDPNGFNDWTFSTVRCWGERARGTYRLMVRDVG  
PC7\_cow|76635181 RGSLEVKLFCPSGMMSLIGAPRSL-DSDPNGFNDWTFSTVRCWGERAKGTYRLVIRDVGD  
PC7\_rat|9506957 RGSLELKLFCPSGMMSLIGAPRSM-DSDPNGFNDWTFSTVRCWGERARGVYRLVIRDVGD  
PC7\_mouse|112181190 RGSLELKLFCPSGMMSLIGAPRSM-DSDPNGFNAWTFSTVRCWGERARGVYRLVIRDVGD

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PC1\_human|116242674 RIQN---EGRIVNWKILIHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKQVMD-----  
PC1\_dog|73952024 RMQN---EGRIVNWKILIHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKQVMD-----  
PC1\_cow|27806045 RIQN---EGRIVTWKILIHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKQVMD-----  
PC1\_rat|8393919 RMQN---EGRIVNWKILIHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKQVMD-----  
PC1\_mouse|7305371 RMQN---EGRIVNWKILIHGTSSQPEHMKQPRVYTSYNTVQNDRRGVEKQVMD-----  
PC2\_human|13124785 SAPQ---KGVLEKWTMLHGTQSAPYIDQVVRDYQSKLAMS-----  
PC2\_dog|73991491 SAPQ---KGVLEKWTMLHGTQSAPYIDQVVRDYQSKLAMS-----  
PC2\_rat|128004 SAPQ---KGLLKEWTMLHGTQSAPYIDQVVRDYQSKLAMS-----  
PC2\_mouse|128003 SAPQ---KGLLKEWTMLHGTQSAPYIDQVVRDYQSKLAMS-----  
PC2\_cow|27806047 SAPQ---KGVLMWWTMLHGTQSAPYIDQVVRDYQSKLAMS-----  
PACE4\_rat|6981328 QVRNPEKQKGLKEWSLILYGTAEHPYRTFSSHQSRSRMLELSVPEQEPLKAEGPPQAET  
PACE4\_mouse|51749605 QVRNPEKQKGLKEWSLILYGTAEHPYRTFSSHQSRSRMLELSVPEQEPLKAAGQPQAET  
PACE4\_human|129542 QVRNPEKQKGLKEWSLILYGTAEHPYHTFSAHQSRSRMLELSAPELEPKAALSQVEV  
PACE4\_dog|73951182 QVRNPEKQKGLKEWSLILYGTAEHPYHTFSSHQSRSRMLELSAPVLESPKALSPLQTEV  
PACE4\_cow|76646745 QVRNREKQ-ALDLSDDLVDGDTPLSVQSVCP-----  
PC5\_human|12643790 QLRNFKTPGKLEKWSLVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYG-----  
PC5\_cow|76624435 QLRNFKTPGKLEKWSLVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYG-----  
PC5\_rat|42632407 QLRNFKTPGKLEKWSLVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYG-----  
PC5\_mouse|220566 QLRNFKTPGKLEKWSLVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYG-----  
PC5\_dog|73946768 QLRNFKTPGKLEKWSLVLYGTSVQPYSPNEFPKVERFRYSRVEDPTDDYG-----  
Furin\_human|120611 ANN---YGTLLTKFTLVLYGTAPEGLPVP--PESSG---CKTLTSSQACVV-----  
Furin\_dog|73951249 ANN---YGTLLTKFTLVLYGTAPEGLHTP--PESSG---CKTLTSSQACVV-----  
Furin\_cow|27806495 ANN---YGTLLTKFTLVLYGTAPEGLPTP--PESSG---CKTLTSSQACVV-----  
Furin\_rat|120613 ANN---YGTLLTKFTLVLYGTAPEGLSAP--PESSG---CKTLTSSQACVV-----  
Furin\_mouse|120612 ANN---YGTLLTKFTLVLYGTAPEGLSTP--PESSG---CKTLTSSQACVV-----  
PC4\_dog|73987552 YFN---TGTLYRYTLLLYGTAEDMTARPPGPQVTS--SACVQRDTEGLCQE-----  
PC4\_cow|76622897 YFN---TGEVR-----PGAAQGLFSCPPSPTLQG--SHCPQVRLGNSALS-----  
PC4\_human|74749381 YFN---TGTLYRYTLLLYGTAEDMTARPTGPQVTS--SACVQRDTEGLCQA-----  
PC4\_rat\_1|118600946 YYN---TGTLYRYTLLLYGTAEDMTARPTGPQV--IVPSP-----  
PC4\_rat\_2|19424240 YYN---TGTLYRYTLLLYGTAEDMTARPTGPQVTS--SACVQRDTEGLCQA-----  
PC4\_mouse|33469095 YFN---TGTLYRYTLLLYGTAEDMTARPTGPQVTS--SACVQRDTEGLCQE-----  
PC7\_human|12643731 ESFQ---VGILRQWQLTLYGWSVAVDIRDRQRLLSAMSGLYHDDFALPCP-----  
PC7\_dog|73954713 ETLQ---AGVLRQWQLTLYGWSVAVDIRDRQRLLSAMSGLYHDDFALPCP-----  
PC7\_cow|76635181 ETSQ---AGVLRQWQLTLYGWSVAVDIRDRQRLLSAMSGLYHDDFALPCP-----  
PC7\_rat|9506957 EPLQ---VGILQQWQLTLYGWSVAVDIRDRQRLLSAMSGLYHDDFALPCP-----  
PC7\_mouse|112181190 EPLQ---MGILQQWQLTLYGWSVAVDIRDRQRLLSAMSGLYHDDFALPCP-----

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PC1\_human|116242674 -----PGEEQPTQENPKENTLVSKSPSSSSVGGRR  
PC1\_dog|73952024 -----LGEEQPTQDNLKKNPLESKSPSGSSSGRR  
PC1\_cow|27806045 -----SGEEQPTQEGLDENAQAASQSPSGSVGGRR  
PC1\_rat|8393919 -----VVEEKPTQNSLNGNLLVPKNSSSSSVEDRR  
PC1\_mouse|7305371 -----VVEKRPTQKSLNGNLLVPKNSSSSSVEGRR  
PC2\_human|13124785 -----K  
PC2\_dog|73991491 -----K  
PC2\_rat|128004 -----K  
PC2\_mouse|128003 -----K  
PC2\_cow|27806047 -----K  
PACE4\_rat|6981328 PEEEEETG-----VCHPECGDKGCDGPNADQCLNCVHFLGNSKTRKCVS  
PACE4\_mouse|51749605 PEDEEETAPSIIQGSNTLQTSVCHPECGDKGCDGPNADQCLNCVHFLGNSKTRKCVS  
PACE4\_human|129542 PEDEEDYTAQSTPGSANILQTSVCHPECGDKGCDGPNADQCLNCVHFLGNSKTRKCVS  
PACE4\_dog|73951182 PEDEEDYTALSTHGSPIILQTSVCHPECGDKGCDGPKADQCLNCVHFLGNSKTRKCVS  
PACE4\_cow|76646745 -----LQWPLGR-----VH  
PC5\_human|12643790 ---TEDYAG-----PCDPECSEVCGDGGPDHCDNCLHYYYKLNKNNTRICVS  
PC5\_cow|76624435 ---TEDYAG-----PCDPECSEVCGDGGPDHCDNCLHYYYKLNKNNTRICVS  
PC5\_rat|42632407 ---AEDYAG-----PCDPECSEVCGDGGPDHCDNCLHYYYKLNKNNTRICVS  
PC5\_mouse|220566 ---AEDYAG-----PCDPECSEVCGDGGPDHCDNCLHYYYKLNKNNTRICVS  
PC5\_dog|73946768 ---TEDYAG-----PCDPECSEVCGDGGPDHCDNCLHYYYKLNKNNTRICVS  
Furin\_human|120611 -----CEEGFSLHQKSCVQHCPPGFAPQVLDTH  
Furin\_dog|73951249 -----CEEGFSLHQKSCVQHCPSGFTPQVLDTH

Furin\_cow|27806495 -----CEEGFSLHQKNCVQHCPGFAFQVLDTH  
Furin\_rat|120613 -----CEEGFSLHQKSCVQRCPPGFTPQVLDTH  
Furin\_mouse|120612 -----CEEGYSLHQKSCVQHCPGFIQVLDTH  
PC4\_dog|73987552 -----CHSSAYTRGHLCLSYCPPRYCKHTQQAV  
PC4\_cow|76622897 -----CHSPAYILGHLCLAYCPPRYFNHTQQAV  
PC4\_human|74749381 -----CDGPAYILGQLCLAYCPPRFNHTR-LV  
PC4\_rat\_1|118600946 -----SWQ-----  
PC4\_rat\_2|19424240 -----SLSPLHCGRTLPHL-----QQAVV  
PC4\_mouse|33469095 -----SHSPLSILAGLCLI-----SSQQW  
PC7\_human|12643731 -----PGLKIPEEDGYTITPNTLKTLLVVGCFVTF  
PC7\_dog|73954713 -----PGLKIPEEDGYTITPNTLKTLLVVGCFVTF  
PC7\_cow|76635181 -----PGLNIPEEDGYTITPNTLKTLLVIGCFVTF  
PC7\_rat|9506957 -----PGLKIPEEDGYTITPNTLKTLLVVGCFVTF  
PC7\_mouse|112181190 -----PGLKIPEEDGYTITPNTLKTLLVVGCFVTF

PC1\_human|116242674 DELEEGAPSQAMLRLLQSAFASKNSPPKQSPKKSPSAKLNI PYENFYEALEKLNKPSQLKD  
PC1\_dog|73952024 DELVEAAPSEAMLRLLQSAFASKNSPPKQSPKKSPSAKLNI PYENFYEALEKLNKPSQLKD  
PC1\_cow|27806045 DELAEGAPSEAMLRLLQSAFASKNSPPKQSPKKSPPSAKPNIPYENFYEALEKLNKPSQLKD  
PC1\_rat|8393919 DEQVQGAPSKAMLRLLQSAFASKNTPSKQSSK-IPSAKLSVPYEGLYEALEKLNKPSQLED  
PC1\_mouse|7305371 DEQVQGTPSKAMLRLLQSAFASKNALSQSPKKSPSAKLSIPYESFYEALEKLNKPSKLEG  
PC2\_human|13124785 KEELEEEELDEAVERSLSKSI LNKN-----  
PC2\_dog|73991491 KEELEEEELDEAVERSLSKSI LRKN-----  
PC2\_rat|128004 KQELEEEELDEAVERSLSQSI LRKN-----  
PC2\_mouse|128003 KQELEEEELDEAVERSLSQSI LRKN-----  
PC2\_cow|27806047 KEELEEEELDEAVQRSLKSI LGKD-----  
PACE4\_rat|6981328 ECPLGYFGDTAARRCRRCHKGCETCTGRSPTQCLSCRGFYHHQETNTCVTLCPAGLYAD  
PACE4\_mouse|51749605 ECPLGYFGDAAARRCRRCHKGCETCTGRSPAQCLSCRGFYHHQETNTCVTLCPAGLYAD  
PACE4\_human|129542 VCPLGYFGDTAARRCRRCHKGCETCSSRAATQCLSCRGFYHHQEMNTCVTLCPAGFYAD  
PACE4\_dog|73951182 VCPLGYFGDTAARRCRRCHKGCETCSGRSPTQCLSCRGFYHHQEMNTCVTFCPAGFYAD  
PACE4\_cow|76646745 VCELHL-----  
PC5\_human|12643790 SCPPGHY-HADKKRCKCAPNCESCFGSHGDQCMSCYGYFLNEETNSCVTHCPDGSYQD  
PC5\_cow|76624435 SCPPGHY-HADKKRCKCAPNCDSCFGSHGDQCLSKYGYFLNEETNSCVTHCPDGSYQD  
PC5\_rat|42632407 SCPPGHF-HADKKRCKCAPNCESCFGSHADQCLSKYGYFLNEETS SCSVAQCPEGSYQD  
PC5\_mouse|220566 SCPPGHY-HADKKRCKCAPNCESCFGSHGDQCLSKYGYFLNEETS SCSVTQCPDGSYED  
PC5\_dog|73946768 SCPSGHY-HADKKRCKCAPNCESCFGSHADQCLSKYGYFLNEEINSCVIHCPDGSYPD  
Furin\_human|120611 YSTENDVETIRASVCAPCHASCATCQGPALTDCLSCPASHASLDPVEQTCRSRQSSRESR  
Furin\_dog|73951249 YSTENDVEIIRASVCAPCHASCATCQGLAPTDCCLSCPASHASLDPVEQTCRSRQSSRESR  
Furin\_cow|27806495 YSTENDVEIIRASVCTPCHASCATCQGPAPTDCCLSCPASHASLDPVEQTCRSRQSSRESR  
Furin\_rat|120613 YSTENDVEIIRASVCTPCHASCATCQGPAPTDCCLSCPASHASLDPVEQTCRSRQSSRESR  
Furin\_mouse|120612 YSTENDVEIIRASVCTPCHASCATCQGPAPTDCCLSCPASHASLDPVEQTCRSRQSSRESR  
PC4\_dog|73987552 TGGPGRPATPALHVCSSCRASCPCRGSSPLNCTACPPSYSLREHRGSCSG-----  
PC4\_cow|76622897 TAGPGHSAVPAMRVCSHSSCYTCRGSPLDCTACPPQSMLEDEQQGSCSG-----  
PC4\_human|74749381 TAGPGHTAAPALRCKKALNCESYTCRGSFPRDCTSCPPSSTLDQQGSCMG-----  
PC4\_rat\_1|118600946 -----NSASSP-ASSGGGSTATHSSQ-----  
PC4\_rat\_2|19424240 VALQPHTAASD-QGTGQLSFSYHTCSAA-----  
PC4\_mouse|33469095 WWLYSHPPQPVTEGQASCHPPVTPAAAA-----  
PC7\_human|12643731 WTVYMLEVYLSQRNVASNQVCRSGPCHWPHRSRKAKEEGTELESVPLCSKDPDEVETE  
PC7\_dog|73954713 WTVYMLEIYLSQRNVATHRVCRSRGPCHWPHRSRKAKEEGTELESVPLCSKDPDGVETE  
PC7\_cow|76635181 WTIIYMLEVYLSQRNVAFGPICRSGPCHWPHRSRKAKEEGTELESMP LCSSQDPGGVGLE  
PC7\_rat|9506957 WTIIYMLEVYLSQRSKASTHGCRGCGCPWPPQSQNSKEVGTALLESMP LCSSKDLGDV DSE  
PC7\_mouse|112181190 WTIIYMLEVYLSQRNKASTHGCRKCGCPWAPRRQNSK DAGTALLESMP LCSSKDLGDV DSE

PC1\_human|116242674 SEDSLYNDYVDVFNTPKPKYKHRDDRLLQALVDILNEEN-----  
PC1\_dog|73952024 SEDNLYSDYVDVFNTPKPKYKHRDDRLLQALVDILREEN-----  
PC1\_cow|27806045 SEDSLYNDYVDVGFNTPKPKYKHRDDRLLQALVDLLREEN-----  
PC1\_rat|8393919 SEDSLYSDYVDVFNTPKPKYKHRDDRLLQALMDILNEKN-----  
PC1\_mouse|7305371 SEDSLYSDYVDVFNTPKPKYKHRDDRLLQALMDILNEEN-----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 ESQRCLCLRCHPSCQKCVDEPEKSTVCKEGFSLARGSCIPDCEPGTYFDSELIRCGECHHT  
PACE4\_mouse|51749605 ESQRCLCLRCHPSCQKCVDEPEKCTVCKEGFSLARGSCIPDCEPGTYFDSELVKCGECHHT  
PACE4\_human|129542 ESQRNCLKCHPSCKCVDEPEKCTVCKEGFSLARGSCIPDCEPGTYFDSELIRCGECHHT  
PACE4\_dog|73951182 ESQRNCLKCHPSCKCVDEPERCIVCKEGFSLARGSCIPDCEPGTYFDSELIKCGECHHT  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 TKKNLCRKCSENCKTCTE-FHNCTE CRDGLSLQGSRCVS CEDGRYFNQG--DCQPCHRF  
PC5\_cow|76624435 TKKSLCRKCSENCKTCTE-SDNCTE CREGL-----

PC5\_rat|42632407 IKKNICGKSENCKTCTG-FHNCTECKGGLSLQGSRC SVTCEGDGQFFSGH--DCQPCHRF  
PC5\_mouse|220566 IKKNVCGKSENCKACIG-FHNCTECKGGLSLQGSRC SVTCEGDGQFFNGH--DCQPCHRF  
PC5\_dog|73946768 TKKNLCRKSENCKTCTE-FHNCTE CRDGLSLQGSRC SITCEDGQYFNGQ--DCQPCHRF  
Furin\_human|120611 PQQQPRL---PPEVEAGQRLRAGLLPSHLPEVVAGLSCAFIVLVFVTVFLVLQLRSGFS  
Furin\_dog|73951249 -QQQPPRP---PAEVEAEPRPRAGLLPSHLPEVVAGLSCAFIVLVFVTVFLVLQLRSGFS  
Furin\_cow|27806495 QQQPPPPRPPPAEVATEPRLRADLLPSHLPEVVAGLSCAFIVLVFVTVFLVLQLRSGFS  
Furin\_rat|120613 PQQPPPALR---PEVEVEPRLRAG-LASHLPEVLAGLSCLIIALIFGIVFLFLHRCSGFS  
Furin\_mouse|120612 PQQQPALR---PEVEMEPRLQAG-LASHLPEVLAGLSCLIIIVLIFGIVFLFLHRCSGFS  
PC4\_dog|73987552 -----PVP PNSPPQPTAVGHPRCHRGRAQAVVLTLLAVAFGSP-LLCRILY---  
PC4\_cow|76622897 -----LHPAEGSHSHSTATACPYPH-GPAQAVVLSLLAMAFGTPPPLPCSPH---  
PC4\_human|74749381 -----PTT PDSRPLRAAACPHHR-CPASAMVLSLLAVTLGGPVLCGMSMD---  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 SRGPPTSDLLAPDLEQGDWLSQNK-SALDCPHQHL--DVPHGKEEQIC-----  
PC7\_dog|73954713 REGPPTSDPLAPDLEQGDWGPSQD-RSTLNCPHHHLAPDLEQKKEEQIC-----  
PC7\_cow|76635181 SEGSPPTSR LHAPDLEQGDWLSQS-RGALDVP-QLLPDLEQKEAQMCM-----  
PC7\_rat|9506957 HGDCTTASSLLAPELLEADWLSQNSKSDLDCP-PHQPPDLKDG---QIC-----  
PC7\_mouse|112181190 HGDCTTASSFLAP-----ELDCP-PHQPPDLEQKSGQIC-----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 CRTCVGPSREECIHCAKSFHFQDWKCV PACGEGFYPEEMPGLPHKVCRRCDENCLSC EGS  
PACE4\_mouse|51749605 CRTCVGPSREECIHCAKSFHFQDWKCV PACGEGFYPEEMPGLPHKVCRRCEENCLSC EGS  
PACE4\_human|129542 CGTCVGP GREECIHCAKNFHFHDWKCV PACGEGFYPEEMPGLPHKVCRRCDENCLSC AGS  
PACE4\_dog|73951182 CQTCVGPSREECIHCAANFHFQDWKCV PACGEGFYPEEMPGLPHKVCRRCDENCLSC EGS  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 CATCAGAGADGCINCTEGYFMEDGRCVQSCSISYFDHSS ENGYKSKKCDISCLTCNGP  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 CATCAGAGADGCINCTEGYVMEEGRCVQSCSVSYLDHSLEGGYKSKKCDNSCLTCNGP  
PC5\_mouse|220566 CATCSGAGADGCINCTEGYVMEEGRCVQSCSVSYLDHSSEGGYKSKKCDNSCLTCNGP  
PC5\_dog|73946768 CATCAGPGADGCINCTEGYFMEDGRCVQSCSLSYFDHSS ENGYKSKKCDASCLTCNGP  
Furin\_human|120611 FRGVKVYTMDRGLISYKGLPPEAWQE ECPDSEDEGRGERTAFIKDQSAL-----  
Furin\_dog|73951249 FRGVKVYTMDRGLISYKGLPPEAWQE ECPDSEDEGRGERTAFIKDQSAL-----  
Furin\_cow|27806495 FRGVKVYTMDRGLISYKGLPPEAWQE ECPDSEDEGRGERTAFIKDQSAL-----  
Furin\_rat|120613 FRGVKVYTMDRGLISYKGLPPEAWQE ECPDSEDEGRGERTAFIKDQSAL-----  
Furin\_mouse|120612 FRGVKVYTMDRGLISYKGLPPEAWQE ECPDSEDEGRGERTAFIKDQSAL-----  
PC4\_dog|73987552 -----RLPAARLEPGWSENLP RGGPAGH-----  
PC4\_cow|76622897 -----GLPAA-----MDGTP-----  
PC4\_human|74749381 -----LPLYAWLSRARATPTKPQVWLPAGT-----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -SRNCSRCKAGFTQLGTSCITNHTCSN-----  
PACE4\_mouse|51749605 -SRNCSRCKAGFTQLGTSCITNHTCSN-----





PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 CSNCDQHECYWCEEFFLLGGTCVRRRCGPGFYGNPEVGECEPCHPACKSCVGLGPHQCSS  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 CQEGLQLQHGTVCVGPAPHVVEGKFWNEPVPTASPSLVKSLPQKPRRKFQIKRDLIRGHQP  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----

PC7\_mouse|112181190 -----  
  
PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 -----  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----  
  
CHPSCKTCGESATQCTSCPkgTYLLAQACVSSCEGTWPSARNGSCENCTEDCASCsgan -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 -----  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
  
LCSKcQTRPDPFVFLHEGRcyTTCPEGFYAEDSTCMPCSSPCRTCEGNATNCHSCQGSli -----

PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371  
PC2\_human|13124785  
PC2\_dog|73991491  
PC2\_rat|128004  
PC2\_mouse|128003  
PC2\_cow|27806047  
PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745  
PC5\_human|12643790  
PC5\_cow|76624435  
PC5\_rat|42632407  
PC5\_mouse|220566  
PC5\_dog|73946768  
Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612  
PC4\_dog|73987552  
PC4\_cow|76622897  
PC4\_human|74749381  
PC4\_rat\_1|118600946  
PC4\_rat\_2|19424240  
PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

LHQGACWEACPERHVAMEGVCKHCPMCQDCIHEKTCKECMPQSFLYKDMCHQSCPQSFY

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371  
PC2\_human|13124785  
PC2\_dog|73991491  
PC2\_rat|128004  
PC2\_mouse|128003  
PC2\_cow|27806047  
PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745  
PC5\_human|12643790  
PC5\_cow|76624435  
PC5\_rat|42632407  
PC5\_mouse|220566  
PC5\_dog|73946768  
Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612

ADLGQCIPCHEDCLECSGPSADDCDLCAEPSLVFYDQGCLDECPVGTYYEKETKDCRDCH

PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 -----  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

KSCQTCLSSGRCTTCKEGLQVNSHGTCMPHEECTHSEYWDVQALKCKPCHAKCFRCTGPT

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 -----

EEQCHSCPRDRLLNLTICVQDCPEGYYADEDSHQVPCHNCRCTCEGRRSTQCCLSCQPGL

Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612  
PC4\_dog|73987552  
PC4\_cow|76622897  
PC4\_human|74749381  
PC4\_rat\_1|118600946  
PC4\_rat\_2|19424240  
PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371  
PC2\_human|13124785  
PC2\_dog|73991491  
PC2\_rat|128004  
PC2\_mouse|128003  
PC2\_cow|27806047  
PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745  
PC5\_human|12643790  
PC5\_cow|76624435  
PC5\_rat|42632407  
PC5\_mouse|220566  
PC5\_dog|73946768  
Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612  
PC4\_dog|73987552  
PC4\_cow|76622897  
PC4\_human|74749381  
PC4\_rat\_1|118600946  
PC4\_rat\_2|19424240  
PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371  
PC2\_human|13124785  
PC2\_dog|73991491  
PC2\_rat|128004  
PC2\_mouse|128003  
PC2\_cow|27806047  
PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745

FQLEKECLLYCREGGYAEISTGRCERCSSKSKACQGGPADCLSCDTFFFLLRSEGECHP

PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 TCPEHYYTEQKTKTCERCHPTCDKCEGKGAWNCLSCVWSYHLMGGICASDCLVGEYRVGK  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----  
PACE4\_rat|6981328 -----  
PACE4\_mouse|51749605 -----  
PACE4\_human|129542 -----  
PACE4\_dog|73951182 -----  
PACE4\_cow|76646745 -----  
PC5\_human|12643790 -----  
PC5\_cow|76624435 -----  
PC5\_rat|42632407 -----  
PC5\_mouse|220566 -----  
PC5\_dog|73946768 GDNFTCEKCHESCVVECKGPGTKNCTVCPASLLLLMDDGRCLQCCNVSDPSHTQECCDCRD  
Furin\_human|120611 -----  
Furin\_dog|73951249 -----  
Furin\_cow|27806495 -----  
Furin\_rat|120613 -----  
Furin\_mouse|120612 -----  
PC4\_dog|73987552 -----  
PC4\_cow|76622897 -----  
PC4\_human|74749381 -----  
PC4\_rat\_1|118600946 -----  
PC4\_rat\_2|19424240 -----  
PC4\_mouse|33469095 -----  
PC7\_human|12643731 -----  
PC7\_dog|73954713 -----  
PC7\_cow|76635181 -----  
PC7\_rat|9506957 -----  
PC7\_mouse|112181190 -----

PC1\_human|116242674 -----  
PC1\_dog|73952024 -----  
PC1\_cow|27806045 -----  
PC1\_rat|8393919 -----  
PC1\_mouse|7305371 -----  
PC2\_human|13124785 -----  
PC2\_dog|73991491 -----  
PC2\_rat|128004 -----  
PC2\_mouse|128003 -----  
PC2\_cow|27806047 -----

PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745  
PC5\_human|12643790  
PC5\_cow|76624435  
PC5\_rat|42632407  
PC5\_mouse|220566  
PC5\_dog|73946768  
Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612  
PC4\_dog|73987552  
PC4\_cow|76622897  
PC4\_human|74749381  
PC4\_rat\_1|118600946  
PC4\_rat\_2|19424240  
PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

TTEECILQSSEIGPAGEHTKTALLITSSVMLVLLLGAAVIVWKKSWGRGPEVAKPGYEKL

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371  
PC2\_human|13124785  
PC2\_dog|73991491  
PC2\_rat|128004  
PC2\_mouse|128003  
PC2\_cow|27806047  
PACE4\_rat|6981328  
PACE4\_mouse|51749605  
PACE4\_human|129542  
PACE4\_dog|73951182  
PACE4\_cow|76646745  
PC5\_human|12643790  
PC5\_cow|76624435  
PC5\_rat|42632407  
PC5\_mouse|220566  
PC5\_dog|73946768  
Furin\_human|120611  
Furin\_dog|73951249  
Furin\_cow|27806495  
Furin\_rat|120613  
Furin\_mouse|120612  
PC4\_dog|73987552  
PC4\_cow|76622897  
PC4\_human|74749381  
PC4\_rat\_1|118600946  
PC4\_rat\_2|19424240  
PC4\_mouse|33469095  
PC7\_human|12643731  
PC7\_dog|73954713  
PC7\_cow|76635181  
PC7\_rat|9506957  
PC7\_mouse|112181190

ADPNKSYVSYKSSHQSTSFEEEDQVIEYRDRDYDEDDDDDIVYMGQDGTVYRKFYGLLD

PC1\_human|116242674  
PC1\_dog|73952024  
PC1\_cow|27806045  
PC1\_rat|8393919  
PC1\_mouse|7305371

PC2_human 13124785	-----
PC2_dog 73991491	-----
PC2_rat 128004	-----
PC2_mouse 128003	-----
PC2_cow 27806047	-----
PACE4_rat 6981328	-----
PACE4_mouse 51749605	-----
PACE4_human 129542	-----
PACE4_dog 73951182	-----
PACE4_cow 76646745	-----
PC5_human 12643790	-----
PC5_cow 76624435	-----
PC5_rat 42632407	-----
PC5_mouse 220566	-----
PC5_dog 73946768	DDEEDELEYDDESYSYQ
Furin_human 120611	-----
Furin_dog 73951249	-----
Furin_cow 27806495	-----
Furin_rat 120613	-----
Furin_mouse 120612	-----
PC4_dog 73987552	-----
PC4_cow 76622897	-----
PC4_human 74749381	-----
PC4_rat_1 118600946	-----
PC4_rat_2 19424240	-----
PC4_mouse 33469095	-----
PC7_human 12643731	-----
PC7_dog 73954713	-----
PC7_cow 76635181	-----
PC7_rat 9506957	-----
PC7_mouse 112181190	-----