Supplementary figure 1

```
DEFB1_hsa      MRTSYLLLFTLCLLLSEMASGGNFLTGLGHRSDHYNCVSSGGQCLYSACPIFTKIQGTCY 60
DEFB1_ptr      MRTSYLLLFTLCLLLSEMASGGNFLTGLGHRSDHYNCVSSGGQCLYSACPIFTKIQGTCY 60
DEFB1_ggo      MRTSYLLLFTLCLLLSEIASGGNFLTGLGHRSDHYNCVSSGGQCLYSACPIFTKIQGTCY 60
DEFB1_ppy      MRTSLLLFTLCLLLSEMASGGNFLTGLGHRSDHYNCVSSGGQCLYSACPIFTKIQGTCY 60
DEFB1_hla      MRTSYLLLFTLCLLLSEMASGDNFLTGLGHRSDHYNCVRSGGQCLYSACPIYTKIQGTCY 60
DEFB1_mfa      MRTSYLLLFTLCLLLSEMASGDNFLTGLGHRSDHYNCVRSGGQCLYSACPIYTRIQGTCY 60
DEFB1_mam      MRTSYLLLFTLCLLLSEMASGDNFLTGLGHRSDHYNCVRSGGQCLYSACPIYTRIQGTCY 60
               ******************:***.**************** *************:*:******
                                          P                 P

DEFB1_hsa      RGKAKCCK 68
DEFB1_ptr      GGKAKCCK 68
DEFB1_ggo      GGKAKCCK 68
DEFB1_ppy      RGKAKCCK 68
DEFB1_hla      QGKAKCCK 68
DEFB1_mfa      HGKAKCCK 68
DEFB1_mam      HGKAKCCK 68
                *******
               S


DEFB4_hsa_1    MRVLYLLFSFLFIFLMPLPGVFGGIGDPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKC 60
DEFB4_ptr_1    MRVLYLLFSFLFIFLMPLPGVFGGISDPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKC 60
DEFB4_ggo_1    MRVLYLLFSFLFIFLMPLPGVFGGIGDPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKC 60
DEFB4_ppy_1    MRVLYLLFSFLFIFLMPLPGVFGGIGDPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKC 60
DEFB4_hla_1    MRVLYLLFSFPFIFLMPLPGVFGDIRNPVTCLKSGAICHPVFCPRRYKQIGTCGLPGTKC 60
DEFB4_mfa_1    MRVLYLLFSFPFIFLMPLPGVFGDIRNPVTCVRSGAICLPGFCPRRYKHIGVCGVSAIKC 60
DEFB4_mam_1    MKVLYLLFSFLFIFLMPLPGVFGDIRNPVTCVRSGAICLPGFCPRRYKHIGVCGVSAIKC 60
               *:********* *************.* :****::***** * *******:**.**:.. **

DEFB4_hsa_1    CKKP 64
DEFB4_ptr_1    CKKP 64
DEFB4_ggo_1    CKKP 64
DEFB4_ppy_1    CKKP 64
DEFB4_hla_1    CRKP 64
DEFB4_mfa_1    CKKP 64
DEFB4_mam_1    CKKP 64
               *:**


DEFB103_hsa_1  MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR 60
DEFB103_ptr_1  MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLTCLPKEEQIGKCSTRGQ 60
DEFB103_ggo_1  MRIHYLLFTLLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR 60
DEFB103_ppy_1  MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR 60
DEFB103_mam_1  MRIHYLLFALLFLFLVPVPGHGGIINTLQKYYCRVRGGRCAVLSCLPKEEQIGKCSTRGR 60
               ********:***************************************:***************:
                                                                          

DEFB103_hsa_1  KCCRRKKK 68
DEFB103_ptr_1  KCCRRKKE 68
DEFB103_ggo_1  KCCRRKKK 68
DEFB103_ppy_1  KCCRRKKK 68
DEFB103_mam_1  KCCRRKKK 68
                *******:
```

```
DEFB104_hsa_1   MQRLVLLLAISLLLYQDLPVRSEFELDRICGYGTARCRKKCRSQEYRIGRCPNTYACCLR 60
DEFB104_ptr_1   MQRLVLLLAISLLLYQDLPVRSEFELDRICGYGTARCRKKCRSQEYRIGRCPNTYACCLR 60
DEFB104_ggo_1   MRRLVLLLAISLLLYQDLPVRSEFELDRICGYGTARCRKKCRSQEYRIGRCPNTFACCLR 60
DEFB104_ppy_1   MRRLVLLLAISLLLYQDLPVRSEFELDRICGYGTARCRKKCRSQEYRIGRCPNTYACCLR 60
DEFB104_hla_1   MRRLVLLLTISVLLYQDLPVRSEFEWDRICGYGTARCRNKCRSQEYRIGRCPNTFACCLR 60
DEFB104_mam_1   MQRLVLLLAISLLFYQDLPVRSEFELDRICGYGTARCRNKCRSQEYKIGRCPNSYACCLR 60
                *:******:**:*:**********  ************:*******:******::*****


DEFB104_hsa_1   KWDESLLNRTKP 72
DEFB104_ptr_1   KWDESLLNRTKP 72
DEFB104_ggo_1   KWDESLLNRTKP 72
DEFB104_ppy_1   KWDESLLNRTKP 72
DEFB104_hla_1   KWDESLLNSTKP 72
DEFB104_mam_1   KWDESLLNRTKP 72
                ******** ***




DEFB105_hsa_1   MALIRKTFYFLFAMFFILVQLPSGCQAGLDFSQPFPSGEFAVCESCKLGRGKCRKECLEN 60
DEFB105_ptr_1   MALIKKTFFFLFAMFFILVQLSSGCQAGLDFSQPFPSGEFAVCESCKLGRGKCRKECLEN 60
DEFB105_ggo_1   MALIRKTFYFLFAVFFILVQLPSGCQAGLDFSQPFPSGEFAVCESCKLGRGKCRKECLEN 60
DEFB105_ppy_1   MALIRKTFYFLFAVFFVLVQLPSECQAGLDFSQPFPSDEFAVCESCKLGRGKCRKECLEN 60
DEFB105_hla_1   MALIRKTFYFLFAVFFILVQLPSGCQAGLDFSQPFPSGEFAVFESCKFSRGKCRKECLEN 60
DEFB105_mfa_1   MALIRKTFYFVFAVFFILVQQPSGCQAGLEFSEPFPSGRFAVCESCKLGRGKCRKECLEN 60
DEFB105_mam_1   MALIRKTFYFVFAVFFVLVQQPSGCQAGLEFSEPFPSGRFAVCESCKLGRGKCRKECLEN 60
                ****:***:*:**:**:***  .*  *****:**:****.. *** ****:.*********


DEFB105_hsa_1   EKPDGNCRLNFLCCRQRI 78
DEFB105_ptr_1   EKPDGNCRLNFLCCRQRI 78
DEFB105_ggo_1   EKPDGNCRLNFLCCRQRI 78
DEFB105_ppy_1   EKPDGNCRLNFLCCRERI 78
DEFB105_hla_1   EKPDGNCRLNFLCCRQSI 78
DEFB105_mfa_1   EKPDGSCRLNFLCCRPRM 78
DEFB105_mam_1   ERPDGSCRLNFLCCRPRM 78
                *:***.*********  :




DEFB106_hsa_1   MRTFLFLFAVLFFLTPAKNAFFDEKCNKLKGTCKNNCGKNEELIALCQKSLKCCRTIQPC 60
DEFB106_ptr_1   MRTFLFLFAVLFFLTPAKNAFFDEKCNKLKGTCKNNCGKNEELIALCQKSLKCCRTIQPC 60
DEFB106_ggo_1   MRTFLFLFAVLFFLTPAKNAFFDEKCNKLKGTCKNNCGKNEELIALCQKSLKCCRTIQPC 60
DEFB106_ppy_1   MRTFLFLFAVLFFLTPAKNEFFDEKCGKLKGTCKNNCGKNEELIALCQKSLKCCRTIQPC 60
DEFB106_mfa_1   MRTFLFLFVVLFFLTPAKNAFFDDKCDKLRGTCKNSCEKNEELTSFCQKSLKCCRTIQTC 60
DEFB106_mam_1   MRTFLFLFVVLFFLTPAKNAFFDDKCDKLRGTCKNNCEKNEELTSFCQKSLKCCRTIQTC 60
                ********.********** ***:**.**:*****.* ***** ::*************.*


DEFB106_hsa_1   GSIID 65
DEFB106_ptr_1   GSIID 65
DEFB106_ggo_1   GSIID 65
DEFB106_ppy_1   GSIID 65
DEFB106_mfa_1   GNTTD 65
DEFB106_mam_1   GNTTD 65
                *.  *
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```
DEFB107_hsa_1    MKIFVFILAALILLAQIFQARTAIHRALISKRMEGHCEAECLTFEVKIGGCRAELAPFCC 60
DEFB107_ptr_1    MKIFFFIFAALILLAQIFQARTAIHRALISKRMEGHCEAECLTFEVKTGGCRAELAPFCC 60
DEFB107_ggo_1    MKIFFFIFAALFLLAQIFQARTAIHRALICKRMEGHCEAECLTFEAKIGGCRAELAPFCC 60
DEFB107_ppy_1    MKIFFFIFAALILLAQIFQARTAIHRALICKRMEGHCEAECLTFEVKIGGCRAELAPFCC 60
DEFB107_hla_1    MKIFFFIFAALILLAQIFQARTAIHRALICKRMEGHCEAECLTFEVKIGGCRAELAPFCC 60
DEFB107_mfa_1    MKIFFFIFAALILLAQIFQARTAIHRALICKRMEGHCEAECLTFEVKIGGCRAELTPYCC 60
DEFB107_mam_1    MKIFFFIFAALILLAQIFQARTAIHRALICKRMEGHCEAECLTFEVKIGGCRAELTPYCC 60
                 ****.**:***:*****************.***************.* *******:*:**


DEFB107_hsa_1    KNRKKH 66
DEFB107_ptr_1    KNRKKH 66
DEFB107_ggo_1    KNRKKH 66
DEFB107_ppy_1    KNRKKH 66
DEFB107_hla_1    KNRKKH 66
DEFB107_mfa_1    KKRKKD 66
DEFB107_mam_1    KKRKKD 66
                 *:***.




DEFB118_hsa      MKLLLLALPMLVLLPQVIPAYSGEKKCWNRSGHCRKQCKDGEAVKDTCKNLRACCIPSNE 60
DEFB118_ptr      MKLLLLALPVLVLLPQVIPAYSGEKKCWNRSGHCRKQCKDGEAVKDTCKNLRACCVPSNE 60
DEFB118_ggo      MKLLLLALPMLVLLPQVIPAYSGEKKCWNRSGHCRKQCKDGEAVKDTCKNLRACCVPSNE 60
DEFB118_ppy      MKLLLLALPMLVLLPQVIPAYSGEKKCWNRSGHCRKQCKDGEAVKDTCKNLRACCVPSNE 60
DEFB118_hla      MKLLLLALPMLVLLPQVIPAYSGEKKCWNRSGHCRKQCKDGEAVKDTCKNLRACCVPSNE 60
DEFB118_mfa      MKLLLLALPILVLLPQVIPAYGGEKKCWNRSGHCRKQCKDGEAVKETCKNHRACCVPSNE 60
DEFB118_mam      MKLLLLALPILVLLPQVIPAYGGEKKCWNRSGHCRKQCKDGEAVKETCKNHRACCVPSNE 60
                 *********:**********.*************************:**** ****:****
                                                            P            P


DEFB118_hsa      DHRRVPATSPTPLSDSTPGIIDDILTVRFTTDYFEVSSKKDMVEESEAGRGTETSLPNVH 120
DEFB118_ptr      DHRRVPMTSPTPLSDSTPGIIDDILTVRFTTDYFEVSSKKDMVEESEAGRGTETSLPNVH 120
DEFB118_ggo      DHRRVPTTSPTPLSDSTPGIIDDILTVRFTTDYFEVSSKKDMIEESEAGRGTETSLPNVH 120
DEFB118_ppy      DHRRVPTTSPTPLSDSTRGVIDDILTVRFTTDYFEVSSKKNMVEESEVGQGTQTSLPNVH 120
DEFB118_hla      DHRQVPTTSPTPLSDSTPGSIDDILTVRFTTDYFEVSSKKDMVEESEAGWGTQTSLPDVH 120
DEFB118_mfa      DHRRVPTTSPTPLSDSTPGIIDNILTIRFTTDYFEISSKKDMVEESEAGQGTQTSPPNVH 120
DEFB118_mam      DHRRLPTTSPTPLSDSTPGIIDNILTIRFTTDYFEISSKKDMVEESEAGQGTQTSPPNVH 120
                 ***::* ********** * **:***:*********:****:*:****.* **:** *:**
                                                                         S


DEFB118_hsa      HSS 123
DEFB118_ptr      HSS 123
DEFB118_ggo      HSS 123
DEFB118_ppy      HSS 123
DEFB118_hla      HSS 123
DEFB118_mfa      HTS 123
DEFB118_mam      HTS 123
                 *:*
```

```
DEFB119_hsa_1    MKLLYLFLAILLAIEEPVISGKRHILRCMGNSGICRASCKKNEQPYLYCRNCQSCCLQSY  60
DEFB119_ptr_1    MKLLYLFLAILLAIEEPVISGKRHILRRMGNSGICRASCKKNEQPYLYCRNYQSCCLQSY  60
DEFB119_ggo_1    MKLLYLFLAILLAIEEPVISGKRHILRCMGNSGICRASCKKNEQPYLYCRNYQSCCLQSY  60
DEFB119_ppy_1    MKLLYLFLAILLVIEEPVISGKRYILRCMGNSGICRASCKRNEQPYLYCKNYQSCCLQSY  60
DEFB119_hla_1    MKLLYLFLAILLAIEEPVISGKHHILRCMGNSGICRASCKKNEQPYLYCRNYQHCCLQSY  60
DEFB119_mfa_1    MKFLFLFLAILLATKIPVISGKRHNLRCMGNSGICRASCKKNEQPYLYCRNYQACCLQSY  60
DEFB119_mam_1    MKFLFLFLAILLATEVPVISGKRHILRCMGNSGICRASCKKNEQPYLYCRNYQACCLQSY  60
                 **:*:*********.  :  ******:: ** **************:*********:*  *  ******


DEFB119_hsa_1    MRISISGKEENTDWSYEKQWPRLP  84
DEFB119_ptr_1    MRISISGKEENTDWSYEKQWPRLP  84
DEFB119_ggo_1    MRISISGKEEDTDWSYEKQWPRLP  84
DEFB119_ppy_1    MRISISGKEENTDWSYEKQWPKLP  84
DEFB119_hla_1    MRISISGEEENTDWSYEKQWPRLP  84
DEFB119_mfa_1    MRISISGKEENTDWSYEKQWPRLP  84
DEFB119_mam_1    MRISISGKEENTDWSYEKQWPRLP  84
                 *******:**:***********:**




DEFB120_hsa_1    MKLLYLFLAILLAIEEPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSRYLTIQP  60
DEFB120_ptr_1    MKLLYLFLAILLAIEEPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSRYLTIQP  60
DEFB120_ggo_1    MKLLYLFLAILLAIEEPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSHYLTIQP  60
DEFB120_ppy_1    MKLLYLFLAILLVIEEPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSHYLTIQP  60
DEFB120_hla_1    MKLLYLFLAILLAIEEPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSRYLTIQP  60
DEFB120_mfa_1    MKFLFLFLAILLATKIPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSRYLTIQP  60
DEFB120_mam_1    MKFLFLFLAILLATEVPVISVECWMDGHCRLLCKDGEDSIIRCRNRKRCCVPSRYLTIQP  60
                 **:*:*********.  :  ****************************************:******
                                         P                      P

DEFB120_hsa_1    VTIHGILGWTTPQMSTTAPKMKTNITNR  88
DEFB120_ptr_1    VTIHGILGWTTPQMSTTAPKTKTNITNR  88
DEFB120_ggo_1    VTIHGILGWTTPQMSTTAPKTKTNITNR  88
DEFB120_ppy_1    VTIHGILGWTTPQMPTTAPKAKRNITNR  88
DEFB120_hla_1    VTIHGILGWTTPQMSTTAPKMKRNITNR  88
DEFB120_mfa_1    VTIHGILGWTTPRMSTTAPQPKRNIHNG  88
DEFB120_mam_1    VTIHGILGWTTPRMSTTAPQPKRNIHNG  88
                 ************:*.****:  *  **  *
                             S




DEFB123_hsa_1    MKLLLLTLTVLLLLSQLTPGGTQRCWNLYGKCRYRCSKKERVYVYCINNKMCCVKPKYQP  60
DEFB123_ptr_1    MKLLLLTLTVLLLLSQLTPGGTQRCWNLYGKCRYRCSKKERVYVYCINNKMCCVKPKYQP  60
DEFB123_ggo_1    MKLLLLTLTVLLLLSQLTPGGTQRCWNLYGKCRYRCSKKERVYVYCINNKMCCVKPKYQP  60
DEFB123_ppy_1    MKLLLLTLTVLLLLSQLTPGGTQRCWNLYGKCRHRCSKKERVYVYCVNNKMCCVKPKYQP  60
                 **********************************:***************:*************


DEFB123_hsa_1    KERWWPF  67
DEFB123_ptr_1    KERWWPF  67
DEFB123_ggo_1    KERWWPF  67
DEFB123_ppy_1    KERWWRF  67
                 ***** *
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```
DEFB125_hsa    MNILMLTFIICGLLTRVTKGSFEPQKCWKNNVGHCRRRCLDTERYILLCRNKLSCCIS-I 59
DEFB125_ptr    MNILMLTFIICGLLTQVTKGSFEPPKCGNNNIGHCRKRCLDTERYILLCRNKLSCCIYII 60
DEFB125_ggo    MNILMLTFIICGLLTQVTKGSFEPQKCWKNNIGHCRRRCLDTERCILLCRNKLSCCIYII 60
DEFB125_ppy    MNLLMLTFIICGLLTQVTKGSFEPQKCWKNNIGHCRRRCLDTERYILLCRNKLSCCISII 60
DEFB125_hla    MNLLMLTFIICGLLTQVTKGSFEPPKCWKNNIGHCRRRCLDTERYILVCRNKLSCCISII 60
DEFB125_mfa    MNLLILTFIICGLLTQVTKGSFEPQKCWKNNIGYCRRRCLDTERYILLCRNKLSCCISII 60
DEFB125_mam    MNLLILTFIICGLLTQVTKGSFEPQKCWKNNIGYCRRRCLDTERYILLCRNKLSCCISII 60
               **:*:**********:******* ** :**:*:**:******* **:*********

DEFB125_hsa    ISHEYTRRPAFPVIHLEDITLDYSDVDSFTGSPVSMLNDLITFDTTKFGETMTPETNTPE 119
DEFB125_ptr    ISHEYTRRPAFPMIHLEDITFDYSDVDSFTGSPVSMLNDLITFDTTKFGETMTPETNTPE 120
DEFB125_ggo    ISHEYTQRPAFPMIHLEDITFDYSDVDSFTGSPVSMLNDLITFDTTKFGETMTPETNTPE 120
DEFB125_ppy    ISHEYTRRPAFPVIHLEDITFDYSDVDSFTGSPVSMLNDLITFDTTKFGETITPETNTPE 120
DEFB125_hla    ISHEYTRRPAFPVIHPEDITFDYSDVDSFTGSPVSMLNDLITFDTTKFGETMTPETNTPE 120
DEFB125_mfa    ISYEYTRRPPFRVIHLEDITFDYSDMGSFTGSPVSKLSDLVTFDIRR--ETMTPKTNTPE 118
DEFB125_mam    ISYEYTRRPPFRVIHLEDITFDYSDMGSFTGSPVSKLSDLVTFDIRR--ETMTPKTNTPE 118
               **:***:**.* :** ****:****:.******* *.**:***   :  **:**:*****

DEFB125_hsa    TTMPPSEATTPETTMPPSETATPRLCHHLLRQLLLIIN 157
DEFB125_ptr    TTMPPSETTTPETTMPPSETATSETMPPLS-QTALTHN 157
DEFB125_ggo    TTVPPSETTTPETTMPPSETATSETMPPPS-QTALTHN 157
DEFB125_ppy    TTMPPSETTSSKTTMPPSETATSET-MPPPSQTALTHN 157
DEFB125_hla    TTMPPS------------KTTTSKTTMPPPSQTALTHN 146
DEFB125_mfa    TTMPPSETTTSKTTMPSSKTTTSKTTMPPPSQMALTHN 156
DEFB125_mam    TTMPPSETTTSKTTMPSSKTTTSKTTMPPPSQMALTHN 156
               **:***          :*:*.        *   *   *



DEFB126_hsa    MKSLLFTLAVFMLLAQLVSGNWYVKKCLNDVGICKKKCKPEEMHVKNGWAMCGKQRDCCV 60
DEFB126_ptr    MKSLLFTLAVFMLLAQLVSGNWYVKKCLNDVGICKKKCKPGEMHIKNGWATCGKQRDCCV 60
DEFB126_ggo    MKSLLFTLAVFMLLAQLVSGNWYVKKCLNDVGICKKKCKPEEMHVKNGWAMCGKQRDCCV 60
DEFB126_ppy    MKSLLFTLAVFMLLAQLVSGSWYVKKCLNDVGICKKKCKPEELHVKNGWAMCGKQRDCCV 60
DEFB126_hla    MKSLLFTLAVFMLLAQLVSGNWYVKKCLNDVGICKKKCKPEELHVKNGRAMCGKQRDCCV 60
DEFB126_mfa    MKSLLFTLAVFMLLAQLVSGNLYVKRCLNDIGICKKTCKPEEVRSEHGWVMCGKRKACCV 60
DEFB126_mam    MKSLLFTLAVFMLLAQLVSGNLYVKRCLNDIGICKKTCKPEEVRSEHGWVMCGKRKACCV 60
               ********************.  ***:****:*****.*** *:: ::* . ***:: ***

DEFB126_hsa    PADRRANYPVFCVQTKTTRISTVTATTAT---------TTLMMTTASMSSMA-------- 103
DEFB126_ptr    PADRRANYPAFCVQTKTTRTSTVTAK-----------TTLMVTTASMSSMA-------- 100
DEFB126_ggo    PADRRANYPAFCVQTKTTRTSTVTATTAT--------TTLMMTTASMSLMA-------- 103
DEFB126_ppy    PADKRANYPAFCVQTKTTRTSTVTATTATRATTAT--TTTLMMTTASMSSMT------- 110
DEFB126_hla    PADKRANYPAFCVQTKTTRTSTVTATAAT-------TTTLVMTTASMSSMA-------- 104
DEFB126_mfa    PADKRSAYPSFCVHSKTTKTSTVTARATATTATTATAATPLMISNGLISLMSYDGRYPCF 120
DEFB126_mam    PADKRSAYPSFCVRSKTTKTSTVTARATATTATTATAATPLMISNGLISLMT------- 112
               ***:*: ** ***::***: *****             *.*:::.. :* *:

DEFB126_hsa    ----PTRFSHWLSLCLLLX 118
DEFB126_ptr    ----PTPVSPTG------- 108
DEFB126_ggo    ----PTPVSPTG------- 111
DEFB126_ppy    ----PTPVSPTG------- 118
DEFB126_hla    ----PTPVSPTS------- 112
DEFB126_mfa    SHYLNIPASVSCSRS---- 135
DEFB126_mam    ----TMAATPVSPTT---- 123
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DEFB127_hsa_1    MGLFMIIAILLFQKPTVTEQLKKCWNNYVQRHCRKICRVNEVPEALCENGRYCCLNIKEL 60
DEFB127_ptr_1    MGLFMIIAILLFQKPTVTEQLKKCWNNYVQGHCRKICRVNEVPEALCENGRYCCLNIKEL 60
DEFB127_ggo_1    MGLFMIIAILLFQKPTVTEQLKKCWNNYVQGHCRKICRVNELPEALCENGRYCCLNIKEL 60
DEFB127_ppy_1    MGLFMIIAILLFQKPTVTEQLKKCWNNYVQGHCRKICRINEVREALCENGRYCCLNINEL 60
DEFB127_hla_1    MGLFMIIAVLLFQKPTVTEQLKKCWDNYVQGRCRKICRVNEVREALCEDGRYCCLNIKEL 60
DEFB127_mfa_1    ----MIIVILLFQKPTVTEQLKTCWDNYVQGHCRKICRVN----ALCENGRYCCLNIKEL 52
DEFB127_mam_1    ----MIIVILLFQKPTVTEQLKTCWDNCVQGHCRKICRVN----ALCENGRYCCLNIKEL 52
                     ***.:*************.**:* ** :*******:*    ****:*********:**
                                             P                              P

DEFB127_hsa_1    EACKKITKPPSPKPATLALTL-QDYVTIIENFPSL 94
DEFB127_ptr_1    EACKKITKPSHPKPATLALTL-QDYVTIIENFPSL 94
DEFB127_ggo_1    EACKKITKPPRPKPATLALTL-QDYVTIIENFPSL 94
DEFB127_ppy_1    EACKKITKPPHPKPATFALTLPQDYVTIIENFPSL 95
DEFB127_hla_1    EACKKITKPPRPKPATLALTLPQDYVTIIENFPIL 95
DEFB127_mfa_1    EACKKITNSPHPKPATLALTLPQDYVTITEKFPIL 87
DEFB127_mam_1    EACKKITNSPHPKPATLALTLPQDYVTITEKFPIL 87
                 *******:.. *****:**** ****** *:** *
                             P
                             S




DEFB128_hsa_1    MKLFLVLIILLFEVLTDGARLKKCFNKVTGYCRKKCKVGERYEIGCLSGKLCCANDEEEK 60
DEFB128_ggo_1    MKLFLVLIILLFEVLTDGARLKKCFNNVTGYCRKKCKVGERYEIGCLSGKLRCANDEEEK 60
DEFB128_ppy_1    MKLFLVLIILLFEVLTDGARLKKCFNNVTGYCRKKCKVGERYEIGCLSGKLCCINYEEEK 60
DEFB128_hla_1    MKLFLVLIILLFEVLTDGARLKKCFNNITGYCRKKCKVGERYEIGCLSGKLCCVNDEEEK 60
DEFB128_mfa_1    MKLFLVLIILLFEVLTDGARLKKCFNNVTGYCRKKCKVGEIHEIGCLSGKLCCVNDEENK 60
DEFB128_mam_1    MKLFLVLIILLFEVLTDGARLKKCFNNVTGYCRKKCKVGEIHEIGCLSGKLCCVNDEENK 60
                 *************************:::************** :********* * * **:*

DEFB128_hsa_1    KHVSFKKPHQHSGEKLSVLLDYIILPTITIFTV 93
DEFB128_ggo_1    KRVI----------------------------- 64
DEFB128_ppy_1    EHVSFKKPHQHSGEKLSVQQDYIILPTVTIFTV 93
DEFB128_hla_1    KHVSFKKPHQHSGEKLSVQQDYIILPTITIFAV 93
DEFB128_mfa_1    KHVPFKKPHQQPVEKLSVQQDYVILPTITIFTV 93
DEFB128_mam_1    KHVPFKKPHQQPVEKLSVQQDYVILPTITIFTV 93
                 ::*
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DEFB129_hsa    MKLLFPIFASLMLQYQVNTEFIGLRRCLMGLGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_ptr    MKLLFPIFASLMLQYQVNTEFIGLRRCLMGLGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_ggo    MKLLFPIFASLMLQYQVNTEFIGLRRCLMGLGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_ppy    MKLLFPVFASLMLQYQVNTEFIGLRRCLMGFGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_hla    MKLLFPIFASLMLQYKVNTEFIGLRRCLMGFGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_mfa    MKLLFPIFASLMLQYQVNTEFIGLRSCLMGFGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
DEFB129_mam    MKLLFPIFASLMLQYQVNTEFIGLRSCLMGFGRCRDHCNVDEKEIQKCKMKKCCVGPKVV 60
               *****:**********:********* ****:***************************

DEFB129_hsa    KLIKNYLQYGTPNVLNEDVQEMLKPAKNSSAVIQRKHILSVLPQIKSTSFFANTNFVIIP 120
DEFB129_ptr    KLIKNYLQYGTPNVLNEDVQEMLKPAKNSSAVIQRKHILSVLPQIKSTSFFANTNFVIIP 120
DEFB129_ggo    KLIKNYLQYGTPNVLNEDVQEMLKPAKNSSAVIQRKHILSVLPQIKSTSFFANTNFVIIP 120
DEFB129_ppy    KLIKNYLQYGIPNVLNEDVQEMLKPAKNSSAVIQRKHILSVLPQIKSTSFFANTNFVIIP 120
DEFB129_hla    KLIKNYLQYGTPNVLNEDVQEMLKSAKNSSAVIQRKHILSVLPQIKSTSFFANTNFVIIP 120
DEFB129_mfa    KLIKNYLQYGTPNVLNEDVQEMLKPAENSSAVIQRKHILSILPQIKSINFFANTNLVIIP 120
DEFB129_mam    KLIKNYLQYGTPNVLNEDVQEMLKPAENSSAVIQRKHILSILPQIKSINFFANTNLVIIP 120
               ********** *************.*:****************:****** .******:****

DEFB129_hsa    NATPMNSATISTMTPGQITYTATSTKSNTKESRDSATASPPPAPPPPNILPTPSLELEEA 180
DEFB129_ptr    NATPMNSATISTMTPGQITYTATSTKSNTKESRDSATASPPPAPPPPNILPTPSLELEEA 180
DEFB129_ggo    NATPMNSATISTMTPGQITYTATSTKSNTKESRDSATASSPPAPPPPNILPTPSLELEEA 180
DEFB129_ppy    NATPMNSATISTMTPGQITYTATSTKSNTKESRDSATASPPPAPPPPNILPTPSLELEKA 180
DEFB129_hla    NATPMNSAIISTVTPGQITYTAASTKSNIKESRDSATASPPPAPPPPNTLPTP------- 173
DEFB129_mfa    NATPVNSATVSTMTSGQITYTATSAKSNTKESGDSATASPPPAPPPPNILPTPSLELEEA 180
DEFB129_mam    NATPVNSATVSTMTSGQITYTATSTKSNTKESRDSATASPPPAPPPPNILPTPSLELEEA 180
               ****:*** :**:*.*******:*:*** *** ******.******** ****

DEFB129_hsa    EEQ 183
DEFB129_ptr    EEQ 183
DEFB129_ggo    EEQ 183
DEFB129_ppy    EEQ 183
DEFB129_hla    ---
DEFB129_mfa    EEQ 183
DEFB129_mam    EEQ 183
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DEFB132_hsa_1    MKFLLLVLAALGFLTQVIPASAGGSKCVSNTPGYCRTCCHWGETALFMCNASRKCCISYS 60
DEFB132_ptr_1    MNFLLLVLAALGFLTQVIPASAGGSKCVSNTPGYCRTYCHWGETALFMCNASRKCCVSYS 60
DEFB132_ggo_1    MKFLLLVLAALGFLTQVIPASAGGSKCVSNTPAYCRTYCHWGETALFMFNASRKCCISYS 60
DEFB132_ppy_1    MKFLLLVLAALRFLTQVIPASAGGSKCVSNTPGYCRTYCHQGETALFMCNASRKCCVSYS 60
DEFB132_hla_1    MKFLLLVLAALRFLTQVIPASGGGSKCVSDTQGYCRTYCHQGETALFMCNASRKCCASYS 60
DEFB132_mfa_1    MKFLLLVLAALGFLTQVIPASGGGSKCVSDTPGYCRTHCHRGETALFMCSPFRKCCISYS 60
DEFB132_mam_1    MKFLLLVLAALGFLTQVIPASGGGSKCVSDTPGYCRTHCHRGETALFMCSPFRKCCISYS 60
                 *:********* ********.*******:* .**** ** ******* .. **** ***
                                                      P                   S

DEFB132_hsa_1    FLPKPDLPQLIGNHWQSRRRNTQRKDKKQQTTVTS- 95
DEFB132_ptr_1    FLPKADLPRLIGNHWQSRRRNTQRKDKKQQTTVTS- 95
DEFB132_ggo_1    FLPKPDLPQLIGNHWQSRR-NTQRKDKKQQTTVTS- 94
DEFB132_ppy_1    FLPKPDLPQLIGNHWQSRRRNTQRKDKKQQTTVTS- 95
DEFB132_hla_1    FLPKPDLPQLIGNHWQSRRRNTQRKDKKQQTTVTSS 96
DEFB132_mfa_1    FLPQPDLPQLIGNHWPSRSRNTQRKNKKQQTTVTP- 95
DEFB132_mam_1    FLPQPDLPQLIGNHWPSRSRNTQRKNKKQQTTVTP- 95
                 ***:.***:****** **   *****:********.
                    P   P                   P
```