

Hs 1 HG SPEGRFHFAIDRGGCTFFDVFACQCPGG--HVRVVKLLSLEDPANVA DAPTEGIRRLLEQEA GMLLPRDQFLDLSH IASIRMGTTVATNALLERKQ
Bt 1 HG QPGRFHFPAIDRGGCTFFDVFACQCPGG--HVRVVKLLSLEDPANVA DAPTEGIRRLLEQEGGVLLPRDRPLDTSRIASIRMGTTVATNALLERKQ
Rn 1 HG SPEGRFHFAIDRGGCTFFDVFACQCPGG--HVRVVKLLSLEDPANVA DAPTEGIRRLLEQEGGVLLPRDRPLDTSRIASIRMGTTVATNALLERKQ
Mm 1 HG SPEGRFHFAIDRGGCTFFDVFACQCPGG--HVRVVKLLSLEDPANVA DAPTEGIRRLLEQEGGVLLPRDRPLDTSRIASIRMGTTVATNALLERKQ
At 1 HG VIEGKLFRCIDRGGCTFFDVFACQCPGG--HVRVVKLLSLEDPANVA DAPTEGIRRLLEQEGGVLLPRDRPLDTSRIASIRMGTTVATNALLERKQ

Hs 94 ERVALLVTRGFRDLDLHGTOARQDFDLAVPMPPEVLYERVLEVDERVLYHR--GGAGGCTPVKGR TGDLLLEVQVQVVDL GRLRGKLEGLLSRGIIS
Bt 94 ERVALLVTRGFRDLDLHGTOARQDFDLAVPMPPEVLYERVLEVDERVLYHR--GGAGGCTPVKGR TGDLLLEVQVQVVDL GRLRGKLEGLLSRGIIS
Rn 94 ERVALLVTRGFRDLDLHGTOARQDFDLAVPMPPEVLYERVLEVDERVLYHR--GGAGGCTPVKGR TGDLLLEVQVQVVDL GRLRGKLEGLLSRGIIS
Mm 94 ERVALLVTRGFRDLDLHGTOARQDFDLAVPMPPEVLYERVLEVDERVLYHR--GGAGGCTPVKGR TGDLLLEVQVQVVDL GRLRGKLEGLLSRGIIS
At 96 ERVALLVTRGFRDLDLHGTOARQDFDLAVPMPPEVLYERVLEVDERVLYHR--GGAGGCTPVKGR TGDLLLEVQVQVVDL GRLRGKLEGLLSRGIIS

Hs 187 LAVVLRHSYTWAOHEQQVGV LARLELGFTHVLSLSSAMPVVRVPRGHGTACADAAYLTPA IQRVYVQGFGRGFGGQLKDVQVLFMRSDGGGLAPDITFS
Bt 187 LAVVLRHSYTWAOHEQQVGV LARLELGFTHVLSLSSAMPVVRVPRGHGTACADAAYLTPA IQRVYVQGFGRGFGGQLKDVQVLFMRSDGGGLAPDITFS
Rn 187 LAVVLRHSYTWAOHEQQVGV LARLELGFTHVLSLSSAMPVVRVPRGHGTACADAAYLTPA IQRVYVQGFGRGFGGQLKDVQVLFMRSDGGGLAPDITFS
Mm 187 LAVVLRHSYTWAOHEQQVGV LARLELGFTHVLSLSSAMPVVRVPRGHGTACADAAYLTPA IQRVYVQGFGRGFGGQLKDVQVLFMRSDGGGLAPDITFS
At 191 LAVVLRHSYTWAOHEQQVGV LARLELGFTHVLSLSSAMPVVRVPRGHGTACADAAYLTPA IQRVYVQGFGRGFGGQLKDVQVLFMRSDGGGLAPDITFS

Hs 282 GSRAVLSGPPAGGVVGYEATTV QEGGQPVIGFDGGTSTDVSRVYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGCSRLFFRSGLFVVGESAGA
Bt 282 GSRAVLSGPPAGGVVGYEATTV QEGGQPVIGFDGGTSTDVSRVYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGCSRLFFRSGLFVVGESAGA
Rn 282 GSRAVLSGPPAGGVVGYEATTV QEGGQPVIGFDGGTSTDVSRVYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGCSRLFFRSGLFVVGESAGA
Mm 282 GSRAVLSGPPAGGVVGYEATTV QEGGQPVIGFDGGTSTDVSRVYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGCSRLFFRSGLFVVGESAGA
At 286 GSKAVLSGPPAGGVVGYEATTV QEGGQPVIGFDGGTSTDVSRVYAGEFEHVFEASTAGVTLQAPQLDINTVAAGGCSRLFFRSGLFVVGESAGA

Hs 377 HPGPACVYRKGQGVVYTDANLVLCRLLPASPFCIFGPGCRNQLSPSEASRRKALRAVAE VNSFLTNGPCPASLS LEVANGFVRVANEAMCRPIRA
Bt 377 HPGPACVYRKGQGVVYTDANLVLCRLLPASPFCIFGPGCRNQLSPSEASRRKALRAVAE VNSFLTNGPCPASLS LEVANGFVRVANEAMCRPIRA
Rn 377 HPGPACVYRKGQGVVYTDANLVLCRLLPASPFCIFGPGCRNQLSPSEASRRKALRAVAE VNSFLTNGPCPASLS LEVANGFVRVANEAMCRPIRA
Mm 377 HPGPACVYRKGQGVVYTDANLVLCRLLPASPFCIFGPGCRNQLSPSEASRRKALRAVAE VNSFLTNGPCPASLS LEVANGFVRVANEAMCRPIRA
At 381 HPGPACVYRKGQGVVYTDANLVLCRLLPASPFCIFGPGCRNQLSPSEASRRKALRAVAE VNSFLTNGPCPASLS LEVANGFVRVANEAMCRPIRA

Hs 472 LTOARGHDPSSAHVLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG
Bt 472 LTOARGHDPSSAHVLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG
Rn 472 LTOARGHDPSSAHVLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG
Mm 472 LTOARGHDPSSAHVLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG
At 476 LTRMKGHSTXNHNLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG

Hs 567 PFRSQISTEFLHRLRYGQDTCALMVSAHQHPATA SPRAGDGGAAFPVRYHREFGFV IERPVVYVDDVVRVGTGRSGSL LEDPKAKGQGFPPVUDR
Bt 567 PFRSQISTEFLHRLRYGQDTCALMVSAHQHPATA SPRAGDGGAAFPVRYHREFGFV IERPVVYVDDVVRVGTGRSGSL LEDPKAKGQGFPPVUDR
Rn 567 PFRSQISTEFLHRLRYGQDTCALMVSAHQHPATA SPRAGDGGAAFPVRYHREFGFV IERPVVYVDDVVRVGTGRSGSL LEDPKAKGQGFPPVUDR
Mm 567 PFRSQISTEFLHRLRYGQDTCALMVSAHQHPATA SPRAGDGGAAFPVRYHREFGFV IERPVVYVDDVVRVGTGRSGSL LEDPKAKGQGFPPVUDR
At 571 PFDGNISTETXNHNLAACFGGAGGQHACATARALGMDTVHHRSSGLSALGLALADVVEHAQEPSCS LVAPETFVQLDQRLSLREEQCVDALQAQG

Hs 662 WTCYFEGGQVETPVYVLDLGLGCHQLGQPCLLIINNSTILVEPQCAEVTGCDRISVGAZVP--GTVQFQLDPIQLSIFSHRPFMSIARQNR
Bt 662 WTCYFEGGQVETPVYVLDLGLGCHQLGQPCLLIINNSTILVEPQCAEVTGCDRISVGAZVP--GTVQFQLDPIQLSIFSHRPFMSIARQNR
Rn 662 WTCYFEGGQVETPVYVLDLGLGCHQLGQPCLLIINNSTILVEPQCAEVTGCDRISVGAZVP--GTVQFQLDPIQLSIFSHRPFMSIARQNR
Mm 662 WTCYFEGGQVETPVYVLDLGLGCHQLGQPCLLIINNSTILVEPQCAEVTGCDRISVGAZVP--GTVQFQLDPIQLSIFSHRPFMSIARQNR
At 662 HYKVFYEGGQVETPVYVLDLGLGCHQLGQPCLLIINNSTILVEPQCAEVTGCDRISVGAZVP--GTVQFQLDPIQLSIFSHRPFMSIARQNR

Hs 755 ILQRTAISTNKEKRLDFSCALFQPDGGGLVSNAPHVPHLGAHQETVQFQIQHGLADLHPGDVLLSNHPSAGGSHLPDLTVITPVFVFPQTRPVFY
Bt 755 ILQRTAISTNKEKRLDFSCALFQPDGGGLVSNAPHVPHLGAHQETVQFQIQHGLADLHPGDVLLSNHPSAGGSHLPDLTVITPVFVFPQTRPVFY
Rn 755 ILQRTAISTNKEKRLDFSCALFQPDGGGLVSNAPHVPHLGAHQETVQFQIQHGLADLHPGDVLLSNHPSAGGSHLPDLTVITPVFVFPQTRPVFY
Mm 755 ILQRTAISTNKEKRLDFSCALFQPDGGGLVSNAPHVPHLGAHQETVQFQIQHGLADLHPGDVLLSNHPSAGGSHLPDLTVITPVFVFPQTRPVFY
At 757 ILQRTAISTNKEKRLDFSCALFQPDGGGLVSNAPHVPHLGAHQETVQFQIQHGLADLHPGDVLLSNHPSAGGSHLPDLTVITPVFVFPQTRPVFY

Hs 850 VASRGHADIGGIIFPGSNPPHSTLQQEGAVPLSPKLVGGVQFQEAFAVTEALRAPC--KIFGCSCTRNLHDNLSDLRAQVAANQKGLVGLGELI
Bt 850 VASRGHADIGGIIFPGSNPPHSTLQQEGAVPLSPKLVGGVQFQEAFAVTEALRAPC--KIFGCSCTRNLHDNLSDLRAQVAANQKGLVGLGELI
Rn 850 VASRGHADIGGIIFPGSNPPHSTLQQEGAVPLSPKLVGGVQFQEAFAVTEALRAPC--KIFGCSCTRNLHDNLSDLRAQVAANQKGLVGLGELI
Mm 850 VASRGHADIGGIIFPGSNPPHSTLQQEGAVPLSPKLVGGVQFQEAFAVTEALRAPC--KIFGCSCTRNLHDNLSDLRAQVAANQKGLVGLGELI
At 850 VASRGHADIGGIIFPGSNPPHSTLQQEGAVPLSPKLVGGVQFQEAFAVTEALRAPC--KIFGCSCTRNLHDNLSDLRAQVAANQKGLVGLGELI

Hs 942 GQVGLDVVQAVYMGHIQANAELAVRDMRLRAFQ-----TSRQARGLPLEVAEDHMDGSPICLRVQINLQSGS AVFDFPSGSGSEVFGNLNAPRAI
Bt 942 GQVGLDVVQAVYMGHIQANAELAVRDMRLRAFQ-----TSRQARGLPLEVAEDHMDGSPICLRVQINLQSGS AVFDFPSGSGSEVFGNLNAPRAI
Rn 942 GQVGLDVVQAVYMGHIQANAELAVRDMRLRAFQ-----TSRQARGLPLEVAEDHMDGSPICLRVQINLQSGS AVFDFPSGSGSEVFGNLNAPRAI
Mm 942 GQVGLDVVQAVYMGHIQANAELAVRDMRLRAFQ-----TSRQARGLPLEVAEDHMDGSPICLRVQINLQSGS AVFDFPSGSGSEVFGNLNAPRAI
At 945 GQVGLDVVQAVYMGHIQANAELAVRDMRLRAFQ-----TSRQARGLPLEVAEDHMDGSPICLRVQINLQSGS AVFDFPSGSGSEVFGNLNAPRAI

Hs 1031 TLSALIYCLRCLVGRDIPLNQGLCLAPVRYVIFPKGSILDPSPFAAVVGGNVLTQRVVVDVILGAFGACAAASGCGNHNVTLGNAMGYYETVAGGAG
Bt 1031 TLSALIYCLRCLVGRDIPLNQGLCLAPVRYVIFPKGSILDPSPFAAVVGGNVLTQRVVVDVILGAFGACAAASGCGNHNVTLGNAMGYYETVAGGAG
Rn 1031 TLSALIYCLRCLVGRDIPLNQGLCLAPVRYVIFPKGSILDPSPFAAVVGGNVLTQRVVVDVILGAFGACAAASGCGNHNVTLGNAMGYYETVAGGAG
Mm 1031 TLSALIYCLRCLVGRDIPLNQGLCLAPVRYVIFPKGSILDPSPFAAVVGGNVLTQRVVVDVILGAFGACAAASGCGNHNVTLGNAMGYYETVAGGAG
At 1040 TFAAVIYCLRCLVGRDIPLNQGLCLAPVRYVIFPKGSILDPSPFAAVVGGNVLTQRVVVDVILGAFGACAAASGCGNHNVTLGNAMGYYETVAGGAG

Hs 1126 AGPQWGHRSQVSHMNTNTRITDPEILSRYPVILRRFELRPSGCGRGRFRGGDGVVRELH FREALLSVLTERRAFPYGLMGGEPGARGLNLLI
Bt 1126 AGPQWGHRSQVSHMNTNTRITDPEILSRYPVILRRFELRPSGCGRGRFRGGDGVVRELH FREALLSVLTERRAFPYGLMGGEPGARGLNLLI
Rn 1126 AGPQWGHRSQVSHMNTNTRITDPEILSRYPVILRRFELRPSGCGRGRFRGGDGVVRELH FREALLSVLTERRAFPYGLMGGEPGARGLNLLI
Mm 1126 AGPQWGHRSQVSHMNTNTRITDPEILSRYPVILRRFELRPSGCGRGRFRGGDGVVRELH FREALLSVLTERRAFPYGLMGGEPGARGLNLLI
At 1135 AGPQWGHRSQVSHMNTNTRITDPEILSRYPVILRRFELRPSGCGRGRFRGGDGVVRELH FREALLSVLTERRAFPYGLMGGEPGARGLNLLI

Hs 1221 RKGDRVTNLCGKTSVTVYVPGDFVCLHTFGGGGQYDPEDFAPPFGSPLQALAFPERGSSVYERRAQEA
Bt 1221 RKGDRVTNLCGKTSVTVYVPGDFVCLHTFGGGGQYDPEDFAPPFGSPLQALAFPERGSSVYERRAQEA
Rn 1221 RKGDRVTNLCGKTSVTVYVPGDFVCLHTFGGGGQYDPEDFAPPFGSPLQALAFPERGSSVYERRAQEA
Mm 1221 RKGDRVTNLCGKTSVTVYVPGDFVCLHTFGGGGQYDPEDFAPPFGSPLQALAFPERGSSVYERRAQEA
At 1230 TKDRRIYVLCGRNRVVEAQLGQLHTFGGGGQYDPEDFAPPFGSPLQALAFPERGSSVYERRAQEA