

Additional file 5. Alignment of TAS1R3 amino acid sequences of 35 catarrhine primates. Variant residues are marked with red.

	1	50	100
<i>Theropithecus gelada</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	LSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Papio hamadryas</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Cercocebus chrysogaster</i>	MLRPAVLGLSLWAVLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Mandrillus sphinx</i>	MLRPAVLGLSLWAVLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Macaca assamensis</i>	MLCPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Macaca arctoides</i>	MLCPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Macaca fuscata</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Cercopithecus mitis</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Cercopithecus albogularis</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Erythrocebus patas</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEVGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Chlorocebus sabaeus</i>	MLHPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF
<i>Nasalis larvatus</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Pygathrix nemaeus</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSSDGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Pygathrix nigripes</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSLDGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Rhinopithecus bieti</i>	MLGPAVLGLSLWAVLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLHLGYDLF
<i>Rhinopithecus brelichi</i>	MLGPAVLGLSLWAVLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLHLGYDLF
<i>Rhinopithecus roxellana</i>	MLGPAVLGLSLWAVLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTQPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Trachypithecus francoisi</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Semnopithecus vector</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Presbytis melalophos</i>	MLCPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYVLGGFLPLSEAGEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Colobus polykomos</i>	MLGPAVLGLSLWALLHLGTGAPLCLSQQLRMNGDYVLGGFLPLSEAGEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGYDLF
<i>Hoolock hoolock</i>	MLGPAVLGLSLWALLHPGMGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGIHSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Symphalangus syndactylus</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Hylobates pileatus</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Hylobates lar</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGIRSQTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Hylobates abbotti</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Hylobates agilis</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Nomascus annamensis</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Nomascus leucogenys</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGIRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Pan troglodytes</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Homo sapiens</i>	MLGPAVLGLSLWALLHPGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Gorilla gorilla gorilla</i>	MLGPAVLGLSLWALLQPGAGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGFRSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Pongo abelii</i>	MLGPAVLGLSLWALLHSGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Pongo pygmaeus</i>	MLGPAVLGLSLWALLHSGTGAPLCLSQQLRMKG DYVLGGFLPLGEAAEEAGLSRTRPSSPVCTR	FSSNGLLWALAMKMAVEEINN	KSDLLPGLRLGYDLF
<i>Lophocebus aterrimus</i>	MLRPAVLGLSLWALLHLGTGAPLCLSQQLRMKG DYMLGGFLPLGEAAEEAGLSRTQPSSPVCTR	FSSNGLLWALAMKMAVEEINNRS	DLLPGLRLGHDLF

<i>Theropithecus gelada</i>	DTCSEPVVAMKPSLMFLAKADSRNIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Papio hamadryas</i>	DTCSEPVVAMKPSLMFLAKADSRNIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Cercocebus chrysogaster</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Mandrillus sphinx</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Macaca assamensis</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGAGMELLSARETFPSFFRTVPSDRVQLVAAAEEL
<i>Macaca arctoides</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGAGMELLSARETFPSFFRTVPSDRVQLVAAAEEL
<i>Macaca fuscata</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGAGMELLSARETFPSFFRTVPSDRVQLVAAAEEL
<i>Cercopithecus mitis</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Cercopithecus albogularis</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Erythrocebus patas</i>	DTCSEPVVAMKPSLMFLAKADSRNIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Chlorocebus sabaceus</i>	DTCSEPVVAMKPSLMFLAKADSRNIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Nasalis larvatus</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLVPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Pygathrix nemaeus</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPYSSELAVVTGRFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Pygathrix nigripes</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPYSSELAVVTGRFFGGFFLMPQVSYGASMELLSARETFPSFFRTVLSDRVQLTAAVEL
<i>Rhinopithecus bieti</i>	DTCSEPVVAMKPSLMFLAKADSHDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Rhinopithecus brelichi</i>	DTCSEPVVAMKPSLMFLAKADSHDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Rhinopithecus roxellana</i>	DTCSEPVVAMKPSLMFLAKADSHDIAAYSNTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Trachypithecus francoisi</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Semnopithecus vector</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTRFYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Presbytis melalophos</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Colobus polykomos</i>	DTCSEPVLAMKPSLMFLAKADSHDIAAYCNYTQYQPRVLAVIGPHSSEL SVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAVEL
<i>Hoolock hoolock</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Symphalangus syndactylus</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTRFYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Hylobates pileatus</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Hylobates lar</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Hylobates abbotti</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Hylobates agilis</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Nomascus annamensis</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Nomascus leucogenys</i>	DTCSEPVVAMKPSLMFLARADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Pan troglodytes</i>	DTCSEPVVAMKPSLVFLAKAGSRDIAAYCNYTQYQPRVLAVIGPHSSELA MVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Homo sapiens</i>	DTCSEPVVAMKPSLMFLAKAGSRDIAAYCNYTQYQPRVLAVIGPHSSELA MVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Gorilla gorilla gorilla</i>	DTCSEPVVAMKPSLMFLAKAGSRDIAAYCNYTQYQPRVLAVIGPHSSELA MVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Pongo abelii</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL
<i>Pongo pygmaeus</i>	DTCSEPVVAMKPSLMFLAKADSRDIAAYCNYTQYQPRVLAVIGPHSSELA LVTGKFFSFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAADL
<i>Lophocebus aterrimus</i>	DTCSEPVVAMKPSLMFLAKADSRNIAAYCNYTQYQPRVLAVIGPHSSELAVVTGKFFGGFFLMPQVSYGASMELLSARETFPSFFRTVPSDRVQLTAAAEEL

<i>Theropithecus gelada</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFAS P RAAHALFSYSISSKLS R KVWVAS
<i>Papio hamadryas</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Cercocebus chrysogaster</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Mandrillus sphinx</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Macaca assamensis</i>	LQEFGWNWVAALGSDDEYGRQGLS T FSALAA S RGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Macaca arctoides</i>	LQEFGWNWVAALGSDDEYGRQGLS T FSALAA S RGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Macaca fuscata</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAA S RGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Cercopithecus mitis</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASVRAAHALFSYSISSKLS R KVWVAS
<i>Cercopithecus albogularis</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASVRAAHALFSYSISSKLS R KVWVAS
<i>Erythrocebus patas</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN S LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Chlorocebus sabaeus</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN S LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS
<i>Nasalis larvatus</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Pygathrix nemaeus</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASAPAAHALFSYSISSKLS S KVWVAS
<i>Pygathrix nigripes</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASAPAAHALFSYSISSKLS S KVWVAS
<i>Rhinopithecus bieti</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Rhinopithecus brelichi</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Rhinopithecus roxellana</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Trachypithecus francoisi</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPL P HAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Semnopithecus vector</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPL P HAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Presbytis melalophos</i>	L L Q FGWNWVAALGSDDEYGRQGL G IF S T LAAA H SICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLFASARAHAHALFSYSISSKLS S KVWVAS
<i>Colobus polykomos</i>	LQEFGWNWVAALGSDDEYGRQGL G IF S T LAAARGICIAHEGLVPLPRAD G LLGKVQDVLHQVNQSSVQVLLF T SARAHAHALFSYSISSKLS P KVWVAS
<i>Hoolock hoolock</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPL P HADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Symphalangus syndactylus</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Hylobates pileatus</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Hylobates lar</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Hylobates abbotti</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Hylobates agilis</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Nomascus annamensis</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Nomascus leucogenys</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQ S NVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Pan troglodytes</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD S RLGKVQDVLHQVNQSSVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Homo sapiens</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD S RLGKVQDVLHQVNQSSVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Gorilla gorilla gorilla</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD S RLGKVQDVLHQVNQSSVQVLLFAS V HAAHAL F NYSISS R LSPKVWVAS
<i>Pongo abelii</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQSSVQVLLFAS V HAA Y AL F NYSISS R LSPKVWVAS
<i>Pongo pygmaeus</i>	L Q Q FGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRADD L RLGKVQDVLHQVNQSSVQVLLFAS V HAA Y AL F NYSISS R LSPKVWVAS
<i>Lophocebus aterrimus</i>	LQEFGWNWVAALGSDDEYGRQGLSIFSALAAARGICIAHEGLVPLPRAN SP LLGKVQ EV LHQVNQSSVQVLLFASARAHAHALFSYSISSKLS R KVWVAS

[illegible]

<i>Theropithecus gelada</i>	AQALHNTLQCNASGCPVQDPVKPWQLLDNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIRWHTSNNQKPVSQCS
<i>Papio hamadryas</i>	AQALHNTLQCNASGCPVQDPVKPWQLLDNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIRWHTSNNQKPVSQCS
<i>Cercocebus chrysogaster</i>	AQALHNTLHCNASGCPVQEPVKPWQLLDNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHNVGRFNGSLWIDSLKIRWHTSNNQKPVSQCS
<i>Mandrillus sphinx</i>	AQALHNTLHCNASGCPVQEPVKPWQLLDNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIRWHTSNNQKPVSQCS
<i>Macaca assamensis</i>	AQALHNAALQCSASGCPVQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSPKIRWHTSNNQKPVSQCS
<i>Macaca arctoides</i>	AQALHNAALQCSASGCPVQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSPKIRWHTSNNQKPVSQCS
<i>Macaca fuscata</i>	AQALHNAALQCSASGCPVQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSPKIRWHTSNNQKPVSQCS
<i>Cercopithecus mitis</i>	AQALHNTLQCNASGCPMRDPVKPWQLLENMYNLTFHAGGLMLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWVDSLKIRWHTSNNQMPVSVQCS
<i>Cercopithecus albogularis</i>	AQALHNTLQCNASGCPMRDPVKPWQLLENMYNLTFHAGGLMLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWVDSLKIRWHTSNNQMPVSVQCS
<i>Erythrocebus patas</i>	AQALHSTLQCNASGCPMRDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIHWHTSNNQKPVSVQCS
<i>Chlorocebus sabaeus</i>	AQALHNTLQCNASGCPMRDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIHWHTSNNQKPVSVQCS
<i>Nasalis larvatus</i>	AQALHNTLQCNASGCPMQDPVKPWQLLQNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Pygathrix nemaeus</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Pygathrix nigripes</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Rhinopithecus bieti</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Rhinopithecus brelichi</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Rhinopithecus roxellana</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Trachypithecus francoisi</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLHFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Semnopithecus vector</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLHFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Presbytis melalophos</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHNVGRFNGSLWTDLSLKIRWHTSNHQKPVSVQCS
<i>Colobus polykomos</i>	AQALHNTLQCNASGCPMQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWTDLSLKIRWHTSNNQKPVSVQCS
<i>Hoolock hoolock</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Symphalangus syndactylus</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Hylobates pileatus</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Hylobates lar</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Hylobates abbotti</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Hylobates agilis</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Nomascus annamensis</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Nomascus leucogenys</i>	AQALHNTLQCNASGCPQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGRFNGSLWTEHLKIRWHTLDNQKPVSVQCS
<i>Pan troglodytes</i>	AQALHNTLQCNASGCPAQDPVKPWQLLENMYNLTFHAGGLMLRFDSSGNVDMEYDLKLWVWQGSVPRLLHDVGRFNGSLRTERLKIRWHTSDNQKPVSRCS
<i>Homo sapiens</i>	AQALHNTLQCNASGCPAQDPVKPWQLLENMYNLTFHAGGLPLRFDSSGNVDMEYDLKLWVWQGSVPRLLHDVGRFNGSLRTERLKIRWHTSDNQKPVSRCS
<i>Gorilla gorilla gorilla</i>	AQALHNTLQCNASGCPAQDPVKPWQLLENMYNLTFHAGGLTLRYDSSGNVDMEYDLKLWVWQGSVPRLLHDVGRFNGSLRTERLKIRWHTSDNQKPVSRCS
<i>Pongo abelii</i>	AQALHNTLQCNASGCPAQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGGFNGSLWTERLKIRWHTPDNQKPVSVQCS
<i>Pongo pygmaeus</i>	AQALHNTLQCNASGCPAQDPVKPWQLLENMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGSVPKLHNVGGFNGSLWTERLKIRWHTPDNQKPVSVQCS
<i>Lophocebus aterrimus</i>	AQALHNTLQCNASGCPVQDPVKPWQLLDNMYNLTFHAGGLTLRFNSNGNVDMEYDLKLWVWQGPVPELHDVGRFNGSLWIDSLKIRWHTSNNQKPVSVQCS

Theropithecus gelada
Papio hamadryas
Cercocebus chrysogaster
Mandrillus sphinx
Macaca assamensis
Macaca arctoides
Macaca fuscata
Cercopithecus mitis
Cercopithecus albogularis
Erythrocebus patas
Chlorocebus sabaeus
Nasalis larvatus
Pygathrix nemaeus
Pygathrix nigripes
Rhinopithecus bieti
Rhinopithecus brelichi
Rhinopithecus roxellana
Trachypithecus francoisi
Semnopithecus vector
Presbytis melalophos
Colobus polykomos
Hoolock hoolock
Symphalangus syndactylus
Hylobates pileatus
Hylobates lar
Hylobates abbotti
Hylobates agilis
Nomascus annamensis
Nomascus leucogenys
Pan troglodytes
Homo sapiens
Gorilla gorilla gorilla
Pongo abelii
Pongo pygmaeus
Lophocebus aterrimus

RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**S**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**S**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**S**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**S**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**GQ**EWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**GQ**EWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDD**FACT**FC**GRE**WSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**SQ**EWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**GL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**SQ**EWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**GL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**SQ**DEWSPERST**Q**CFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**SQ**DEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**GL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
WQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
WQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
WQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTSCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSY**QK**SPDDLAC**SFCN**QDEWSPERSTSCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**N**QDEWSPERSTRCFRRRLRFLAWGEP**V**LLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLAC**SFCN**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
QQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**Y**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVD**E**AGSYR**QN**PDDIAC**FCG**QDEWSPERSTRCFRRR**S**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLF**I**HRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVD**E**AGSYR**QN**PDDIAC**FCG**QDEWSPERSTRCFRRR**S**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLF**VH**HRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVD**E**AGSYR**QN**PDDV**TCTSCG**QDEWSPERSTRCF**HRRS**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLF**VH**HRDSPLVQ
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**S**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLV**R**
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYR**H**SPDDLACTFC**CR**QDEWSPERSTRCFRRR**S**RFLAWGEPVLLLLLLL**SL**ALGLVLAALGLFIRHRDSPLV**R**
RQCQEGQVRRVKGFHSCCYDCVDCKAGSYRKSPDDLACTFC**S**QDEWSPERSTRCFRRRLRFLAWGEPVLLLLLLL**FGL**ALGLVLAALGLFIRHRDSPLVQ

<i>Theropithecus gelada</i>	ASGG L LACF S LVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVVL V AMLVEAALCAWYL
<i>Papio hamadryas</i>	ASGG L LACF S LVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Cercocebus chrysogaster</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIF M ESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Mandrillus sphinx</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Macaca assamensis</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIF A ESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Macaca arctoides</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIF A ESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Macaca fuscata</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Cercopithecus mitis</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRG P AWLVLLAMLVEAALCAWYL
<i>Cercopithecus albogularis</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRG P AWLVLLAMLVEAALCAWYL
<i>Erythrocebus patas</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCTWYL
<i>Chlorocebus sabaeus</i>	ASGGPLACFGLVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLL A VLVEAALCAWYL
<i>Nasalis larvatus</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Pygathrix nemaeus</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Pygathrix nigripes</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Rhinopithecus bieti</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Rhinopithecus brelichi</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Rhinopithecus roxellana</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Trachypithecus francoisi</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Semnopithecus vector</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Presbytis melalophos</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Colobus polykomos</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSP A LCLAQQPSSHLPLTGCLSTLILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL
<i>Hoolock hoolock</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Symphalangus syndactylus</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRG P AWLVLLAMLVEAALC T WYL
<i>Hylobates pileatus</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Hylobates lar</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Hylobates abbotti</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Hylobates agilis</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Nomascus annamensis</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Nomascus leucogenys</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALC T WYL
<i>Pan troglodytes</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVE V ALC T WYL
<i>Homo sapiens</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVE V ALC T WYL
<i>Gorilla gorilla gorilla</i>	ASGGPLACFGLVCLGLVCLSVLLFPQGQSPA Q CLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVE V ALC T WYL
<i>Pongo abelii</i>	ASGGPLACFGLVCLGLVCLSVLLFP Q R P G TARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVE V ALC T WYL
<i>Pongo pygmaeus</i>	ASGGPLACFGLVCLGLVCLSVLLFP Q R P G TARCLAQQ P L S HLPLTGCLSTL F LQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVE V ALC T WYL
<i>Lophocebus aterrimus</i>	ASGG L LACF S LVCLGLVC I SVLLFPQGQSPARCLAQQPSSHLPLTGCLST F ILQAAEIFVESELPLSWADRLSGCLRGPWAWLVLLAMLVEAALCAWYL

	701	750	800
<i>Theropithecus gelada</i>	VAFPPEMVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Papio hamadryas</i>	VAFPPEVVM	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Cercocebus chrysogaster</i>	VAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Mandrillus sphinx</i>	VAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Macaca assamensis</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Macaca arctoides</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Macaca fuscata</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Cercopithecus mitis</i>	VAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Cercopithecus albogularis</i>	VAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Erythrocebus patas</i>	MAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Chlorocebus sabaeus</i>	MVFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Nasalis larvatus</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Pygathrix nemaeus</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Pygathrix nigripes</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Rhinopithecus bieti</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Rhinopithecus brelichi</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Rhinopithecus roxellana</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Trachypithecus francoisi</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Semnopithecus vector</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Presbytis melalophos</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Colobus polykomos</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Hoolock hoolock</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Symphalangus syndactylus</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Hylobates pileatus</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Hylobates lar</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Hylobates abbotti</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Hylobates agilis</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Nomascus annamensis</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Nomascus leucogenys</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Pan troglodytes</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Homo sapiens</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Gorilla gorilla gorilla</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Pongo abelii</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Pongo pygmaeus</i>	VAFPPEVVT	DWRMLPTEALVHCR	TRSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL
<i>Lophocebus aterrimus</i>	VAFPPEVVT	DWRMLPTEALVHCR	ARSWVSFGLVHATNATLAFLCFLGTFLVQSRPGRYNRARGLTFAMLAYFITWVSFVPLL

<i>Theropithecus gelada</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Papio hamadryas</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Cercocebus chrysogaster</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGHTGNQKGHE
<i>Mandrillus sphinx</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGHTGNQKGHE
<i>Macaca assamensis</i>	CVLGILAAFHLLPRCYLLVQQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Macaca arctoides</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Macaca fuscata</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Cercopithecus mitis</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Cercopithecus albogularis</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Erythrocebus patas</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGNHE
<i>Chlorocebus sabaceus</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQKGHE
<i>Nasalis larvatus</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGKPE
<i>Pygathrix nemaeus</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARERNNDGDTGNQGKPE
<i>Pygathrix nigripes</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARENRNDGDTGNQGRPE
<i>Rhinopithecus bieti</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGKPE
<i>Rhinopithecus brelichi</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGKPE
<i>Rhinopithecus roxellana</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGKPE
<i>Trachypithecus francoisi</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGN?GKPE
<i>Semnopithecus vector</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGN?GKPE
<i>Presbytis melalophos</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDGDTGNQGKPE
<i>Colobus polykomos</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDARDNRNDADTGNQGKPE
<i>Hoolock hoolock</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPKFFLGGPGDAQGRNDGDTGNQKGHE
<i>Symphalangus syndactylus</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Hylobates pileatus</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Hylobates lar</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Hylobates abbotti</i>	CVLGILVAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Hylobates agilis</i>	CVLGILAAFHLLPRCYQLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Nomascus annamensis</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNNGDTGNQKGHE
<i>Nomascus leucogenys</i>	CVLGILAAFHLLPRCYLLMQQPGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Pan troglodytes</i>	CVLGILAAFHLLPRCYLLMWQPGGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Homo sapiens</i>	CVLGILAAFHLLPRCYLLMRQPGGLNTPEFFLGGPGDAQGQNDGNTGNQKGHE
<i>Gorilla gorilla gorilla</i>	CVLGILAAFHLLPRCYLLIRQPGGLNTPEFFLGGPGDAQGRNDGDTGNQKGHE
<i>Pongo abelii</i>	CVLGILAAFHLLPRCYLLMRQPGGLNTPEFFLGGPGDAQGRNDGDTGNQRKHE
<i>Pongo pygmaeus</i>	CVLGILAAFHLLPRCYLLMRQPGGLNTPEFFLGGPGDAQGRNDGDTGNQRKHE
<i>Lophocebus aterrimus</i>	CVLGILAAFHLLPRCYLLVRQPELNTPEFFLGRGPGDA*DRNDGDTGNQKGHE