

Cercopithecus mitis L A Q L A V G S A L F S I V V P I L A P G L G S T R S P A L C S L G Y C V W Y G S A F A Q A L L L G
Cercopithecus mona L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Cercopithecus wolfi L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Trachypithecus francoisi L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Colobus guereza L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Rhinopithecus roxellana L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Pan paniscus L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Pan troglodytes L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Homo sapiens L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Gorilla gorilla L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Pongo abelii L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Pongo pygmaeus L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Hylobates agilis L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Hylobates pileatus L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Hylobates lar L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Symphalangus syndactylus L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Nomascus gabrielle L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Nomascus leucogenys L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Chiropotes satanas L A Q L A V G S A L F S I V V P I L A P G L G S T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Pithecia pithecia L A Q L A V G S A L F S I V V P I L A P G L G N T R S S T L C S L G Y C V W Y G S A F A Q A L L L G
Callicebus cupreus L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Alouatta clamitans L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Ateles geoffroyi L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Callithrix sp. L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Callithrix jacchus L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Saguinus imperator L A Q L A V G S T L F S I V V P I L A P G L G N T R S S A P C S L G Y C V W Y G S A F A Q A L L L G
Saguinus midas L A Q L A V G S T L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Aotinae L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Cebus apella L A Q L A V G S A L F S I V V P I L A P G L G N T R S S A L C S L G Y C V W Y G S A F A Q A L L L G
Saimiri boliviensis L A Q L A V G S A L F S I V V P I L A P G L G N T H S S A L C S L G Y C V W Y G S A F A Q A L L L G
Saimiri sciureus L A Q L A V G S A L F S I V V P I L A P G L G N T H S S A L C S L G Y C V W Y G S A F A Q A L L L G
Saimiri ustus L A Q L A V G S A L F S I V V P I L A P G L G N T H S S A L C S L G Y C V W Y G S A F A Q A L L L G

Macaca mulatta T G C C A T G C C T C C C T G G G C C C C A A A C T G G G T G C A G G C C A G G T C C C A G G C C T C A C C C T G G G G C T C T C T G T G G C C T T T G G G A G T G G C G G C C T A C T G A C A C T G C C T A T C A C C T T G G C A G T G G C C T T C T G G T G G A C T C T G C A C T C G G C A
Macaca thibetana C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P A
Cercocebus torquatus C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Macaca fascicularis C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Macaca nemestrina C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V

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460 470 480 490 500 510 520 530 540 550 560 570 580 590 600
4

Macaca nigra C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Mandrillus leucophaeus C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Mandrillus apinx C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Cercopithecus agilis C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Theropithecus gelada C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Papio anubis C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Lophocebus albigena C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Lophocebus aterrimus C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Cercopithecus galeritus C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Miopithecus talapoin C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P V
Allenopithecus nigroviridis C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P M
Cercopithecus mitis C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Cercopithecus mona C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Cercopithecus wolffi C H A S L G P K L G A G Q V P G L T L G L S V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Trachypithecus francoisi C H A S L G P K L G A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Colobus guereza C H A S L G P K L G A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Rhinopithecus roxellana C H A S L G P K L G A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S G A S G G L C T P I
Pan paniscus C H A S L G H R L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Pan troglodytes C H A S L G H R L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Homo sapiens C H A S L G H R L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Gorilla gorilla C H A S L G H R L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Pongo abelii C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Pongo pygmaeus C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Hylobates agilis C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T P I
Hylobates pileatus C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T R I
Hylobates lar C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T L I
Symphalangus syndactylus C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G P C T P I
Nomascus gabrielle C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T P I
Nomascus leucogenys C H A S L G H K L G A G Q V P G L T L G L T V G I W G V A A L L T L P V T L A S G A S G G L C T P I
Chiropotes satanas C H A S L G P K L G A G Q V P G L T L G L T M G L W G A A A L L T L P I T L A S G A S D G L C T P I
Pithecia pithecia C H A S L G P K L G A G Q V P G L T L G L T V G L W G A A A L L T L P I T L A S G A S D G L C T P I
Callicebus cupreus C H A S L G P K L S A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S D A S D G L C T P I
Alouatta clamitans C H A S L G P K L G A G Q V P G L T L G L T V G L W E A A A L L T L P I T L A S G A S D G L C T P I
Ateles geoffroyi C H A S L G P K L G A G Q V P G L T L G L T V G L W G A A A L L T L P I T L A S G A S D G L C T P I
Callithrix sp. C H A S L G P K L G A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S D A S D G L C T P I
Callithrix jacchus C H A S L G P K L G A G Q V P G L T L G L T V G L W G V A A L L T L P I T L A S D A S D G L C T P I
Saguinus imperator C H A S L G P K L G A G Q V P G L T L G L S V G L W G A A A L L T L P I T L A S D A S D G L C T P I
Saguinus midas C H A S L G P K L G A G Q V P G L T L G L S V G L W G A A A L L T L P I T L A S D A S D G L C T P I

Nomascus gabrielleC.....C.....A.....CA.....T.....A.....
Y S T E L K A L Q A T H T V A C L A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W A
Nomascus leucogenysC.....A.....CA.....T.....A.....
Y S T E L K A L Q A T H T V A C L A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W A
Chiropotes satanasCA.....C.....A.....C.....T.....CA.....C.....T.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Pithecia pitheciaCA.....C.....A.....C.....T.....CA.....C.....T.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Callicebus cupreusCA.....G.....C.....CT.....T.....CA.....C.....T.....T.....
Y S T E L K A L Q A T H A V S C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Alouatta clamitansGCA.....A.....T.....T.....CA.....C.....T.....A.....CGG.....T.....GT.....T.....
Y S A E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K G V G M G P G P W M N I L V V
Ateles geoffroyiCA.....C.....A.....C.....T.....C.....C.....T.....T.....
Y S T E L K A L Q A T H T V A C F A V F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Callithrix sp.C.....C.....A.....C.....T.....CA.....C.....T.....A.....C.....G.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N V L W V
Callithrix jacchusC.....A.....C.....T.....CA.....C.....T.....A.....C.....G.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N V L W V
Saguinus imperatorT.....C.....C.....A.....C.....T.....CA.....C.....T.....A.....TGC.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K V L G M G P G P W M N I L W V
Saguinus midasC.....C.....A.....C.....T.....CA.....C.....T.....A.....GC.....T.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
AotinaeC.....C.....C.....A.....CA.....T.....CA.....C.....T.....G.....T.....
H S T E L K A L Q A T H T V T C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Cebus apellaT.....C.....C.....A.....C.....T.....CA.....C.....T.....G.....G.....C.....AT.....
Y S T E L K A L Q A T H T V A C F A I F V L L P L G L F G A K G V K K A L G M G P G P W M T I L W I
Saimiri boliviensisC.....G.A.....C.....T.....V.....T.....CA.....C.....T.....G.....C.....T.....
Y S T E L E A L Q A T H A V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Saimiri sciureusC.....T.....A.....C.....T.....CA.....C.....T.....G.....C.....T.....
Y S T E L K A L Q A T H A V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V
Saimiri ustusC.....T.....A.....C.....T.....CA.....C.....T.....G.....C.....T.....
Y S T E L K A L Q A T H A V A C F A I F V L L P L G L F G A K G L K K A L G M G P G P W M N I L W V

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.....|.....|.....|.....
Macaca mulatta TGGTTTATTTCCTGGTGG
W F I F W W
Macaca thibetana
W F I F W W
Cercocebus torquatus
W F I F W W
Macaca fascicularis
W F I F W W
Macaca nemestrina
W F I F W W
Macaca nigra
W F I F W W
Mandrillus leucophaeus
W F I F W W
Mandrillus apinx
W F I F W W
Cercocebus agilis
W F I F W W
Theropithecus gelada
W F I F W W
Papio anubis
W F I F W W
Lophocebus albigena
W F I F W W
Lophocebus aterrimus
W F I F W W
Cercocebus galeritus
W F I F W W
Miopithecus talapoin
W F I F W W
Allenopithecus nigroviridis
W F I F W W
Cercopithecus mitis
W F I F W W
Cercopithecus mona
W F I F W W
Cercopithecus wolfi
W F I F W W
Trachypithecus francoisi
W F I F W W
Colobus guereza
W F I F W W

Rhinopithecus roxellana	..... W F I F W W
Pan paniscus	..... W F I F W W
Pan troglodytes	..... W F I F W W
Homo sapiens	..... W F I F W W
Gorilla gorilla	..... W F I F W W
Pongo abelii	..... W F I F W W
Pongo pygmaeus	..... W F I F W W
Hylobates agilis	..... W F I F W W
Hylobates pileatus	..... W F I F W W
Hylobates lar	..... W F I F W W
Symphalangus syndactylus	..... W F I F W W
Nomascus gabrielle	..... W F I F W W
Nomascus leucogenys	..... W F I F W W
Chiropotes satanas	..... W F I F W W
Pithecia pithecia	.....G..
Callicebus cupreus	.....G..
Alouatta clamitans	..... W F I F W W
Ateles geoffroyi	..... W F I F W W
Callithrix sp.	..... W F I F W W
Callithrix jacchus	..... W F I F W W
Saguinus imperator	..... W F I F W W
Saguinus midas	..... W F I F W W
Aotinae	..... W F I F W W
Cebus apella	..... W F I F W W
Saimiri boliviensis	..... W F I F W W
Saimiri sciureus	..... W F I F W W
Saimiri ustus	..... W F I F W W