

Oryctolagus_cuniculus	MEPKARRP	DSERGASC	T-HHEPEP	LALEEGGR	S--RR-RA	RA--GSSS	RPLGLQLR	P--RPRPQ	RR----	AAV--	---AAT	SAIFG-RR	---PAAVQPV
Octodon_degus	MEPKAKCP	DSQGAPC	A-NHEPP	-ALEEGGQ	R--RR-WA	RA--GSSN	GSLGLQFR	P--CPRPQ	RR----	AAA--	VAAVA	RVLNG-GR	---TAAAOPL
Cavia_porcellus	MEPKARCS	DSQRGASC	T-NHEPPP	-ALEEGGQ	R--RH-RT	RA--SSSN	GTLGLQLR	P--RPRPQ	RR----	AAA--	AAAAT	RAILR-GR	---AAAAOPL
Chinchilla_lanigera	MEPKASCP	DSQRGAPC	T-HHESP	-ALEEGGR	R--RR-RA	RA--SSST	GSLGLQLR	P--RPRPQ	RR----	AAA--	VAAVA	RAILG-GR	---AAAAOPL
Fukomys_damarensis	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HH-RA	RA--SSSN	GSLGLQLR	P--RPRPQ	RR----	AAA--	VAAVA	RAILR-GR	---AAAAOPL
Heterocephalus_glaber	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGQ	R--HR-RG	RA--SSSI	GSLGLQLR	P--RPRPQ	RR----	AAA--	VAAVA	RAILR-GR	---AAATAOPL
Castor_canadensis	MEPKARCP	GSQGSAC	T-NHESP	-AMEEGGQ	R--HR-RA	RA--GSSH	GTLGLQLR	P--RPRPQ	RR----	AAA--	AA	AAVLG-GR	---AAAAQPV
Tupaia_chinensis	MEPKARCP	DSQGTCP	S-NHESP	-ALEESGQ	R--HD-RA	RA--SSSS	RAIGLQLR	---PSPL	RR----	GTA--	VAAA	SAILR-GR	---AAATQPI
Myotis_lucifugus	MEPKARCP	ESQRGAPC	T-HHEPPP	-ALEESGR	L--RGR-RA	RA--GASSS	GALGLQLR	R--HPRPQ	RR----	AAA--	AAA	SAILG-G	---
Desmodus_rotundus	MEPKARCP	ESQRGAPC	T-HHEPL	-ALEESGR	L--HGCR	RA--GSSS	EALGLQLR	L--RPRPQ	RR----	AAA--	AAA	SAVLG-GR	---AAAVOSI
Phyllostomus_discolor	MEPKARCP	ESQRGAPC	T-NHEPPP	-ALEESGR	L--HRRRA	RA--GSSS	EALGLQLR	L--RPRPQ	RR----	AAA--	AAA	TAVLG-GR	---AAAVOPL
Nannospalax_galili	MEPKAQCP	ESQRGAPC	T-NHEPPS	-ALEEGGQ	R--HR-RL	RA--SPSN	RTLGLQLR	P--RPRPQ	RR----	ADA--	ASA	SAILR-GR	---AAAAQPI
Eptesicus_fuscus	MEPKARCP	ESQRGAPC	T-HHEPPP	-ALEESGR	L--RRR-RA	RA--GSSSS	GALGLQLR	L--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAAAOPL
Equus_caballus	MEPKARCP	DSHRGAPC	T-RHEPP	-ALEEGGQ	R--RR-RA	RL--CSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAA	AAILG-GR	---AAAAORA
Equus_przewalskii	MEPKARCP	DSHRGAPC	T-RHEPP	-ALEEGGQ	R--RR-RA	RL--CSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAA	AAILG-GR	---AAAAORA
Ceratotherium_simum_simum	MEPKARCP	DSQRGASC	T-NHEPPP	-ALEEGGQ	R--RR-RA	RA--DSSS	RAIGLQLR	P--RPRPQ	RR----	AAA--	AAA	AGILG-GR	---AAAAQPT
Bison_bison_bison	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--GSSS	ATIGLQLR	L--RPRPQ	RR----	AAA--	AAA	---	---AA
Bos_indicus	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	L--HR-RA	RP--GSSS	ATIGLQLR	L--RPRPQ	RR----	AAV--	AAA	CAILG-GR	---AAAAOPL
Bos_indicus_x_Bos_taurus	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--DSSS	ATIGLQLR	L--RPRPQ	RR----	AAV--	AAA	SAILG-GR	---AAAAOPL
Bos_taurus	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--DSSS	ATIGLQLR	L--RPRPQ	RR----	AAV--	AAA	SAILG-GR	---AAAAOPL
Odocoileus_virginianus_texanus	MDPKAGCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--GSSS	ADIGLQLR	L--RPRPQ	RR----	AAA--	AAA	CAILG-GR	---AAAAOPL
Capra_hircus	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--QR-RT	RP--GSSS	GTLGLQLR	L--RPRPQ	RR----	AAA--	AAA	CAILG-GR	---AAAAOPL
Ovis_aries	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--GSSS	GTLGLQLR	L--RPRPQ	RR----	AAA--	AAA	CAILG-GR	---AAAAOPL
Ovis_aries_musimon	MEPKARCP	DAHRGAPC	T-HHEPPP	-ALEEGGR	R--HR-RA	RP--GSSS	GTLGLQLR	L--RPRPQ	RR----	AAA--	AAA	CAILG-GR	---AAAAOPL
Otolemur_garnettii	MEPKDRCS	DSQRGAPC	T-NNEPPP	-ALEEGGR	R--HR-RA	RA--SSSS	SALGLQLR	L--RPRPQ	RR----	AAA--	ATAAA	GAILG-GC	---AASAQPV
Manis_javanica	MEPKARCP	DSQRGPPC	T-NHEPL	-ALEESGR	R--RR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	GAILR-GR	---AAATAQPI
Hipposideros_armiger	MEPKARCP	ESQRGAPC	T-NHEPPP	-ALEESGR	R--HR-RA	RA--GSSS	GALGLQLR	L--RHRPQ	RR----	AAA--	VAAAA	SAIFG-GR	---PAAPQPT
Dasypus_novemcinctus	MEPKARCP	DSQGAAC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	RSIGLQLR	P--RPRPQ	RR----	AAA--	TVAAA	SAILG-GR	---AAAAQPA
Canis_lupus_dingo	MEPKARCP	DSQRGASC	T-HHEPPP	-ALEEGGR	R--HHR-RA	RV--SASS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAOPL
Canis_lupus_familiaris	MEPKARCP	DSQRGASC	T-HHEPPP	-ALEEGGR	R--HHR-RA	RV--SASS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAOPL
Rousettus_aegyptiacus	MEPKARCP	ESQRGAPC	T-NHEPPP	-ALEESGR	R--RR-RA	RA--GSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAATVQPI
Pteropus_alecto	MEPKARCP	ESQRGAPC	T-NHEPPP	-ALEESGR	R--RR-RA	RA--GSSS	GALGLQLR	L--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAAVQPV
Pteropus_vampyrus	MEPKARCP	ESQRGAPC	T-NHEPPP	-ALEESGR	R--RR-RA	RA--GSSS	GALGLQLR	L--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAAVQPV
Microcebus_murinus	MEPKARCS	DSQRGAPC	T-NHESP	-ALEEGGR	R--HR-RA	RA--GSSS	SALGLRLR	P--RPRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPV
Propithecus_coquereli	MEPKARCS	DSQRGASC	T-NHESP	-ALEEGGR	R--HR-RA	RA--TSSS	SALGLQLR	L--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAAAQPV
Loxodonta_africana	MEPKARCP	DSQRGAPC	T-NHEPL	-ALEEGGR	R--R-GA	RA--GSSS	RAIGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	RAILR-GR	---AAALQPA
Trichechus_manatus_latirostris	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--R-RA	RA--GSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	SAILR-GR	---AAAAQPA
Sus_scrofa	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--QR-RA	RA--GSSS	RAIGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	GALLG-GR	---AAAAQPT
Theropithecus_gelada	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Chlorocebus_sabaeus	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Cercocebus_atys	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Macaca_nemestrina	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Mandrillus_leucophaeus	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Macaca_fascicularis	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	A	SAVLG-GR	---AAAAQPV
Papio_anubis	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AXA	SAVLG-GR	---AAAAQPV
Ptilocolobus_tephrosceles	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSTS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Rhinopithecus_bieti	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	A	AAAAA	SAVLG-GR	---AAAAQPI
Rhinopithecus_roxellana	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Colobus_angolensis_palliatu	MESKARCS	DSQGGPC	T-NHEPPP	-ALEEVGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Nomascus_leucogenys	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	A	AAAAA	SAVLG-GR	---AASAQPI
Pongo_abelii	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AT	AAAAA	SAVLG-GR	---AAAAQPI
Pan_troglodytes	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA	AAAAA	SAVLG-GR	---AAAAQPI
Gorilla_gorilla_gorilla	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RRAAAAA	AAAAA	AAAAA	SAVLG-GR	---AAAAQPI
Homo_sapiens	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RRAAAAA	AAAAA	AAAAA	SAVLG-GR	---AAAAQPI
Pan_paniscus	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	A	AAAAA	SAVLG-GR	---AAAAQPI
Saimiri_boliviensis_boliviensis	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--RHR-RA	RA--SSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Callithrix_jacchus	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--RHR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Cebus_capucinus_imitator	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--RHR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Aotus_nancymae	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--RHR-RA	RA--GSSS	GALGLQLR	P--RVRPQ	RR----	AAA--	AAAAA	SAVLG-GR	---AAAAQPI
Urocyon_vulpinus	MEPKARCS	DSQGGPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	RPLGLQLR	P--RPRPQ	RR----	AAA--	ASAAA	SAILG-GR	---AAAAQPI
Marmota_marmota_marmota	MEAKARCP	DSQRGAPC	T-NHEPPP	-ALEESGR	R--HR-RA	RA--GSSN	GPLGLQLR	P--RPRPQ	RR----	AAA--	ASAAA	SAILG-GR	---AAAAQPI
Marmota_flaviventris	MEAKARCP	DSQRGAPC	T-NHEPPP	-ALEESGR	R--HR-RA	RA--GSSN	GPLGLQLR	P--RPRPQ	RR----	AAA--	ASAAA	SAILG-GR	---AAAAQPI
Ictidomys_tridecemlineatus	MEAKARCP	DSQRGAPC	T-NHEPPP	-ALEESGR	R--HR-RA	RA--GSSS	GPLGLQLR	P--RPRPQ	RR----	ASA--	ASAAA	SAILG-GR	---AAAAQPI
Ursus_arctos_horribilis	MEPKARCP	DSQRGAPC	T-NHEPPS	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR----	AAA--	AAAAA	SAILG-GR	---AAAAQPI

Ailuropoda_melanoleuca	MEPKARCL	DSQRGAPC	T-NHEPFS	-ALEEGGR	RHXHRRRA	RA--SSSS	GALGLQLR	F--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPI
Orcinus_orca	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGQ	R--HR-RA	RA--GSSS	GTGLQLR	L--RPRPQ	RR	---	AAA	---	AVAAAAA	SAVLG-GR	-AAAAQPI
Balaenoptera_acutorostrata_scammoni	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HR-RV	RA--GSSS	GALGLQLR	L--RPRPQ	RR	---	AAA	---	AAAAA	SAVLG-GR	-AAAAQPI
Neophocaena_asiaeorientalis_asiaeorientalis	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	L--RPRPQ	RR	---	AAA	---	AAAAAAA	SAVLG-GR	-AAAAQPI
Lagenorhynchus_obliquoidens	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	L--RPRPQ	RR	---	AAAAA	---	AAVAAAAA	SAVLG-GR	-AAAAQPI
Physeter_catodon	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	L--RPRPQ	RR	---	A	---	AAAAA	SAVLG-GR	-AAAAQPI
Vicugna_pacos	MEPKARCP	DSHRGAPC	T-NHEPPP	-ALEEGGR	R--HR-RA	RA--GSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPI
Mustela_putorius_furo	MEPKARCA	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	VAAAA	SAILG-GR	-AAAAQPI
Enhydra_lutris_kenyoni	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	VAAAA	SAILG-GR	-AAAAQPI
Odobenus_rosmarus_divergens	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	AAAAA	RAILG-GR	-AAAAQPV
Eumetopias_jubatus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	AAAAA	RAILG-GR	-AAAAQPV
Zalophus_californianus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	AAAAA	RAILG-GR	-AAAAQPV
Leptonychotes_weddellii	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	RHHHR-RA	RASSSSSS	GALGLQLR	P--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPV
Felis_catus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	RAIGLRLR	P--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPV
Panthera_pardus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	RAIGLRLR	P--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPV
Acinonyx_jubatus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--HHR-RA	RA--SSSS	RAIGLRLR	P--RPRPQ	RR	---	AAA	---	AAAAA	SAILG-GR	-AAAAQPV
Peromyscus_maniculatus_bairdii	MEPKAGCP	DSQRGAPC	THHHEPPP	-ALEEGGQ	R--QD-RP	QA--GSSN	RTEGVQLR	RRLRPRPR	RR	---	---	---	AAAVA	SALFGGGR	AAAAQPA
Mesocricetus_auratus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGE	P--QD-QL	RA--SCSN	RTQDLQLR	P--RPRPQ	RR	---	---	---	AAAVA	NGLFG-GR	-AAAAQPS
Microtus_ochrogaster	MEPKARSP	DPQRGAPC	T-HHEPPP	-ALEEGGE	Q--QD-GL	GT--SSSN	RTQGLQLR	P--RPRPQ	RR	---	---	---	AAAVA	SALFG-GR	-AAAAQPF
Meriones_unguiculatus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGQ	R--QG-RL	RA--RASH	GTGLQLR	P--RPRPQ	RR	---	---	---	AAAVA	SALLR-GC	AAAAQPS
Rattus_norvegicus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGR	R--QS-RL	RA--STSN	RTIGLQLR	P--RPRPQ	RR	---	---	---	AAAVA	NALLR-EW	-AAAAQPS
Mus_musculus	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGW	R--QG-RL	RA--STSN	RAIGLQLR	P--RPRPQ	RR	---	---	---	AAAVA	NALLR-EW	-AAAAQPS
Mus_pahari	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGW	H--QG-RL	RA--STSN	RAIGLQLR	P--RPRPQ	RR	---	---	---	AAAVA	NALLR-EW	-AAAAQPS
Mus_caroli	MEPKARCP	DSQRGAPC	T-NHEPPP	-ALEEGGW	H--QG-RL	RA--STSN	RAIGLQLR	P--RPRPQ	RR	---	---	---	AAAIA	NALLR-EW	-AAAAQPS

Oryctolagus_cuniculus	AHPDALQR	AARAN-LLR	A-RRGDAR	GGRRAPOR	AAPAGARA	LGAASHAL	AGRGAAPT	APLRGQPG	PALPPPQA	EAEPLPG	GGRLVVG	AAAPPAHE	LGLGGGLD
Octodon_degus	AHPDALQR	AARAN-LLR	V-RRAGAR	RGRGAPOR	RALAEARA	LGPGRRAL	ARCGAAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLIAG	PAAPPAPPE	LGLGGGLD
Cavia_porcellus	AHPDALQR	AARAN-LLR	V-PRAEFR	RGRGAPOC	RALAEARA	LGPARRSL	ARRGAAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLAAG	PAAPPAPPE	LGLGGGLD
Chinchilla_lanigera	AHPDALQR	AARAN-LLR	V-RRAEAR	RGRGAPOR	RALAEARA	LGPGRRAL	ARRGAAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLAAG	PAAPPAPPE	LGLGGGLD
Fukomys_damarensis	AHPDALQR	AARAN-LLR	V-RRTEAG	GGRRAPOR	RALAEARA	LGPAGHAL	ARRGVAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLAAG	PAAPPAPPE	LGLGGGLD
Heterocephalus_glaber	AHPDALQR	AARAN-LLR	V-RRTOAR	GGRRAPOR	RALAEARA	LGPASHAL	ARRGAAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGRIAAAG	PAAPPAPPE	LGLGGGLD
Castor_canadensis	AHPDAVALR	AARAN-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAANRPL	ARRGAAPA	AAQGGQPG	PALPPPQA	EAEHALPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Tupaia_chinensis	AHPDALER	AARAN-LLR	A-RRRAAO	RGRGAPOR	RALAEARA	LGAASHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAFAG	PAAPQAPPE	LGLGGGLD
Myotis_lucifugus	-----	---AD-IR	GRRRGDAR	RVRGAPOR	GAIAEARS	LGAAGSAP	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Desmodus_rotundus	AHSDAVER	ASRAN-LLR	A-RRGDER	RGCAPOR	RAPAEARA	LGAAGRTL	ARRGAAPA	VPLRCRPG	PALPPPQA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Phyllostomus_discolor	AHPDAVER	ASRAN-LLR	A-RRGDAQ	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGTAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGORLALAG	PAAPQAPPE	LGVGGGLD
Nannospalax_galili	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	PAPTEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPQAPPE	LGLGGGLD
Eptesicus_fuscus	AHPDALEG	ASRAN-LLR	ARRRGDAR	RARGAPOR	GAPAEARA	LGAAGRAB	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAAG	PAAPQAPPE	LGLGGGLD
Equus_caballus	AHPDALQG	APRAD-LLR	A-RRGAAR	RGRGAPOR	RAPAEARA	LGAAGRAB	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Equus_przewalskii	AHPDALQG	APRAD-LLR	A-RRGAAR	RGRGAPOR	RAPAEARA	LGAAGRAB	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Ceratotherium_simum_simum	AHPDALQR	ASRAN-LLR	A-RRGAAR	RGRGAPOR	RAPAEARA	LGAASRDP	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGLGGGLD
Bison_bison_bison	-----	---VA-	A-RRGESR	RGRGAROR	GAPAEARA	LGAAGPAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Bos_indicus	AHPDALER	APRAD-LLR	X-RRGEAR	RGRGAPOR	GAPAEARA	LGAASPAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Bos_indicus_x_Bos_taurus	AHPDALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAASPAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Bos_taurus	AHPDALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAASPAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Odocoileus_virginianus_texanus	AHPDALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAADRAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Capra_hircus	AHPNALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAAGHAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Ovis_aries	AHPNALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAAGRAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Ovis_aries_musimon	AHPNALER	APRAD-LLR	A-RRGEAR	RGRGAPOR	GAPAEARA	LGAAGRAL	ARRGAAPA	APSRGQPG	PALPHPGA	EAEPLPG	GGQLALAG	PAAPQAPPE	LGLGGGLD
Otolemur_garnettii	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RTPAEARA	LGAALRAL	ARRGAAPA	APLRGQPG	PALPLGPF	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGLGGGLD
Manis_javanica	AHPDALER	APRAN-LLR	A-RRGGAR	RGRGAPOR	RAPAEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPLGPF	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGLGGGLD
Hipposideros_armiger	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRSL	ARRGAAPP	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGLGGGLD
Dasyus_novemcinctus	AHPDALQR	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAARRAL	ARRGAAPA	APLRGQPG	PALPYGPF	EAEPLPG	GGQLAVAG	PAAPPAPD	LGLGGGLD
Canis_lupus_dingo	AHPDALER	ASRAN-LLR	E-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPQAPPE	LGLGGGLD
Canis_lupus_familiaris	AHPDALER	ASRAN-LLR	E-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPQAPPE	LGLGGGLD
Rousettus_aegyptiacus	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RTPAEARA	LGAAGRAL	ARRGAAPT	PPLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPPAPPE	LGLGGGLD
Pteropus_alecto	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RTPAEARA	LGAAGRAL	ARRGAAPT	PPLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPPAPPE	LGLGGGLD
Pteropus_vampyrus	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RTPAEARA	LGAAGRAL	ARRGAAPT	PPLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPPAPPE	LGLGGGLD
Microcebus_murinus	AHPDALER	AARAN-LLR	A-RRGDAR	RGRSATOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGLGGGLD
Propithecus_coquereli	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAALQAPPE	LGLGGGLD
Loxodonta_africana	AHPDALER	APRDL-LLR	Y-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRVL	ARRGVAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPQAPPE	LGMGGGLD
Trichechus_manatus_latirostris	AHPDALER	ASRPD-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRTL	ARRGVAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAIAG	PAAPPAPPE	LGLGGGLD
Sus_scrofa	AHPDALER	APRAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPPAPPE	LGLGGGLD
Theropithecus_gelada	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Chlorocebus_sabaeus	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Cercocebus_atys	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Macaca_nemestrina	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Mandrillus_leucophaeus	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Macaca_fascicularis	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Papio_anubis	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAHG	LGLGGGLD
Ptilocolobus_tephrosceles	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAPG	LGLGGGLD
Rhinopithecus_bieti	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAPG	LGLGGGLD
Rhinopithecus_roxellana	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAPG	LGLGGGLD
Colobus_angolensis_palliatus	AHPDALER	AARAN-LLR	A-RRGDTTR	RGRGAPOR	RTPAEARA	LGAASSAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAPG	LGLGGGLD
Nomascus_leucogenys	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRPL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPAAPG	LGLGGGLD
Pongo_abelii	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Pan_troglodytes	GHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Gorilla_gorilla_gorilla	GHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Homo_sapiens	GHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Pan_paniscus	GHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Saimiri_boliviensis_boliviensis	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Callithrix_jacchus	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Cebus_capucinus_imitator	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Aotus_nancymae	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAASRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLAVAG	PAAPQAPPE	LGLGGGLD
Urocyon_parryii	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RASAEARA	LGAAGRAH	ARRGVAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQFFVAG	PAAPPAPPE	LGLGGGLD
Marmota_marmota_marmota	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RASAEARA	LGAAGRAH	ARRGVAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLPVAG	PAAPPAPPE	LGLGGGLD
Marmota_flaviventris	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RASAEARA	LGAAGRAH	ARRGVAPA	AALRGQPG	PALPPPQA	EAEPLPG	GGQLPVAG	PAAPPAPPE	LGLGGGLD
Ictidomys_tridecemlineatus	AHPDALER	AARAN-LLR	A-RRGDAR	RGRGAPOR	RASAEARA	LGAAGRAL	ARRGAAPA	AALRRQPG	PALPPPQA	EAEPLPG	GGQLVAVAG	PAAPPAPPE	LGLGGGLD
Ursus_arctos_horribilis	AHPDAVER	ASRAN-LW	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGQLIAG	PAAPPAPPE	LGLGGGLD
Ailuropoda_melanoleuca	AHPDAVER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGHAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Orcinus_orca	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Balaenoptera_acutorostrata_scammoni	AHPDALER	ASRAN-LLR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGSAGRAL	ARRGAAPA	APLRGQPG	PALPPPQA	EAEPLPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD

Neophocaena_asiaeorientalis_asiaeorientalis	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGAAPA	APVRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAGPPAPE	LGLGGGLD
Lagenorhynchus_obliquidens	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAGPPAPE	LGLGGGLD
Physeter_catodon	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAAGRAL	ARRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAGPPAPE	LGLGGGLD
Vicugna_pacos	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RA-----	-----	-----	-----	-----	-----	-----	-----	-----
Mustela_putorius_furo	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAAARA	LGAAGHAL	AGRGAAPA	APLRGQPG	PALPAPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Enhydra_lutris_kenyoni	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAAARA	LGAAGHAL	AGRGAAPA	AALRCRPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPQAPE	LGLGGGLD
Odobenus_rosmarus_divergens	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAADHAL	AGRGPAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Eumetopias_jubatus	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAADHAL	AGRGPAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Zalophus_californianus	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPAEARA	LGAADHAL	AGRGPAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Leptonychotes_weddellii	AHPDALER	ASRAN-LR	A-RRGDAR	RGRGAPOR	RAPTGARA	LGAADHAL	AGRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Felis_catus	AHPDALER	ASRAN-LR	A-RRGEAR	RGRGAPOR	RAPAEARA	LGAAGHAL	AGRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Panthera_pardus	AHPDALER	ASRAN-LR	A-RRGEAR	RGRGAPOR	RAPAEARA	LGAAGHAL	AGRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Acinonyx_jubatus	AHPDALER	ASRAN-LR	A-RRGEAR	RGRGAPOR	RAPAEARA	LGAAGHAL	AGRGAAPA	APLRGQPG	PALPPPGP	EAEPALPG	GGOLVIAG	PAAPPAPPE	LGLGGGLD
Peromyscus_maniculatus_bairdii	AHPDAVER	AARANLLR	V-RRGAPR	RGRGAAQH	PAPAEARA	LGAAGHAH	ARRAAEPA	PAPGGQPG	PALPPPGP	EAEPALLG	GGRLVIGG	PVAAPARE	VGLGGGLD
Mesocricetus_auratus	AHPDALER	AARAN-LR	V-RRGEAR	RGRGAAQH	QAPAEARA	LGAADHAL	ARRAAEPA	PAPRGQPG	PALPPPGP	EAEPALLG	GGRLFIGG	PIAAPARE	LGLGGGLD
Microtus_ochrogaster	AHPDAVER	AARAN-LR	V-RRGEAR	RGRGAAQH	QAPAEARA	LGAAGHAL	ARRAAAPA	PALRGQPG	PALPPPGP	EAEPALLG	GGRLIRGG	PIAAPAQE	LGLGGGLD
Meriones_unguiculatus	AHPDAVER	AARAN-LR	V-RRGSPR	RGRGTPOH	RAPAEARA	LGAAVHAL	ARRGAAPA	PALRCRPR	PALPPRGP	EAEPALLG	GGRLVIGD	PFAAPAPE	LGLGGGLD
Rattus_norvegicus	AHPDAVER	PARAN-LR	V-RRGRAR	RGRGAAQH	RAPAEARA	LGAADHAL	ARRAAAPA	PALRGQPG	PALPPPGP	EAEPVVLG	GGRLVIGG	PIAPPQOE	VGLGGGLD
Mus_musculus	AHPDVVER	PARAD-LR	V-RRGNAR	RGRGAAQR	RAPAEARA	LGAAGHAL	ARRGAAPA	PALRGQPG	PALPPPGP	EAEPALLG	GGRLVIGG	PIAPRAQE	LGLGGGLD
Mus_pahari	AHPDAVER	PARAN-LR	V-RRGNAR	RGRGAAQH	RAPAEARA	LGAAGHAL	ARRGAAPA	PALRGQPG	PALPPPGP	EAEPALLG	GGRLVIGG	PIAPRAQE	LGLGGGLD
Mus_caroli	AHPDAVER	PARAD-LR	V-RRGNAR	RGRGAAQH	RAPAEARA	LGAAGHAL	ARRGAAPA	PALGGQPG	PALPPPGP	EAEPALLG	GGRLVIGG	PIAPRAQE	LGLGGGLD

Oryctolagus_cuniculus	PVRPRGGG	RPRGRPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Octodon_degus	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Cavia_porcellus	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Chinchilla_lanigera	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Fukomys_damarensis	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Heterocephalus_glaber	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Castor_canadensis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	ALGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Tupaia_chinensis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Myotis_lucifugus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Desmodus_rotundus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Phyllostomus_discolor	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Nannospalax_galili	PLRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Eptesicus_fuscus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLLAG	LSLADCPG	PRSG----	-----
Equus_caballus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Equus_przewalskii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ceratotherium_simum_simum	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Bison_bison_bison	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Bos_indicus	PVRPRXGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Bos_indicus_x_Bos_taurus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Bos_taurus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Odocoileus_virginianus_texanus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Capra_hircus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ovis_aries	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ovis_aries_musimon	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Otolemur_garnettii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Manis_javanica	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Hipposideros_armiger	PVRPRGGG	RTRGHPRG	AGPGVRRG	CVLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Dasyus_novemcinctus	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Canis_lupus_dingo	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Canis_lupus_familiaris	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Rousettus_aegyptiacus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Pteropus_alecto	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	-----	-----	-----
Pteropus_vampyrus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Microcebus_murinus	AVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Propithecus_coquereli	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Loxodonta_africana	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Trichechus_manatus_latirostris	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Sus_scrofa	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Theropithecus_gelada	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Chlorocebus_sabaeus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Cercocebus_atys	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Macaca_nemestrina	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Mandrillus_leucophaeus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Macaca_fascicularis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Papio_anubis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ptilocolobus_tephrosceles	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Rhinopithecus_bieti	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Rhinopithecus_roxellana	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Colobus_angolensis_palliatus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Nomascus_leucogenys	PLRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Pongo_abelii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Pan_troglodytes	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Gorilla_gorilla_gorilla	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Homo_sapiens	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Pan_paniscus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Saimiri_boliviensis_boliviensis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Callithrix_jacchus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Cebus_capucinus_imitator	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Aotus_nancymae	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Urocyon_parryii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Marmota_marmota_marmota	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Marmota_flaviventris	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ictidomys_tridecemlineatus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ursus_arctos_horribilis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Ailuropoda_melanoleuca	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Orcinus_orca	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Balaenoptera_acutorostrata_scammoni	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG

Neophocaena_asiaeorientalis_asiaeorientalis	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Lagenorhynchus_obliquidens	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Physeter_catodon	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Vicugna_pacos	---PRG-G	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Mustela_putorius_furo	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Enhydra_lutris_kenyoni	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHVGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Odobenus_rosmarus_divergens	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Eumetopias_jubatus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Zalophus_californianus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Leptonychotes_weddellii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHIGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Felis_catus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Panthera_pardus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Acinonyx_jubatus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHAGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Peromyscus_maniculatus_bairdii	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLPVRGNV	PHFGAGHI	PLGLVFL	--VQPAAG	GRAVLLDQ	PAIAG
Mesocricetus_auratus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLHGRGNL	PHLGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Microtus_ochrogaster	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Meriones_unguiculatus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Rattus_norvegicus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAVAG
Mus_musculus	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Mus_pahari	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG
Mus_caroli	PVRPRGGG	RTRGHPRG	AGPGVRRG	GLLGRGNL	PHFGGGHI	PLGLVFL	--VQPAAG	GRALLLDQ	PAIAG