

**Table a. Accession numbers of the sequences of the “Madsen” data set.**

Order	Species	A2AB	IRBP	vWF	BRCA1
Carnivora	Cat, <i>Felis catus</i>	AJ251174	Z11811	U31613	AF284018
	Dog, <i>Canis familiaris</i>			L76227	U50709
	Fox, <i>Vulpes velox</i>		AF179293		
	Harbor seal, <i>Phoca vitulina</i>	AJ251176			
Cetartiodactyla	Cow, <i>Bos taurus</i>	Y15944	J04441	AF004285	AF284013
	Fin whale, <i>Balaenoptera physalus</i>	AJ251175			
	Hippo, <i>Hippopotamus amphibius</i>	AJ251178	AF108837	AF108832	AF284015
	Humpback whale, <i>Megaptera novaeangliae</i>			AF226849	AF284017
	Minke whale, <i>Balaenoptera acutorostrata</i>		U50820		
	Pig, <i>Sus scrofa</i>	AJ251177	U48588	S78431	AF284014
	Chiroptera	Big eared bat, <i>Macrotus californicus</i>	AJ251180		
Flying fox, <i>Pteropus hypomelanus</i>			Z11809		
Flying Fox, <i>Cynopterus sphinx</i>		AJ251181			AF203750
Fruit bat, <i>Dobsonia moluccensis</i>				U31609	
Round eared bat, <i>Tonatia bidens</i>			Z11810	U31622	AF203745
Dermoptera	Flying lemur, <i>Cynocephalus variegatus</i>	AJ251182	Z11807	U31606	AF019081
Didelphimorphia	Large American Opossum, <i>Didelphis virginiana</i>		Z11814	AF226848	
	Large American Opossum, <i>Didelphis marsupialis</i>	Y15943			
	Thick-tailed Opossum, <i>Lutreolina crassicaudata</i>				AF284032
Diprotodontia	Kangaroo, <i>Macropus rufus</i>	AJ251183			
	Kangaroo, <i>Macropus giganteus</i>			AJ224670	
	Wombat, <i>Vombatus ursinus</i>		AF025386		AF284031
Hyracoidea	Rock Hyrax, <i>Procavia capensis</i>	Y12523	U48586	U31619	AF284023
Insectivora	Eastern mole, <i>Scalopus aquaticus</i>			AF076479	AF284007
	European mole, <i>Talpa europaea</i>	Y12520			
	Hedgehog, <i>Erinaceus europaeus</i>	Y12521	AF025390	U97536	AF284008
	Shrew, <i>Sorex palustris</i>		U48587		
Lagomorpha	Rabbit, <i>Oryctolagus cuniculus</i>	Y15946	Z11812	U31618	
	Jackrabbit, <i>Lepus capensis</i>				AF284005
Macroscelidea	Long-eared Elephant shrew, <i>Elephantulus rufescens</i>		U48584	U31612	AF284028

	Rond-eared Elephant shrew, <i>Macroscelides proboscideus</i>	Y12524			
Perissodactyla	Black Rhino, <i>Diceros bicornis</i>	AJ251184			AF284011
	Donkey, <i>Equus asinus</i>			U31610	
	Horse, <i>Equus caballus</i>	Y15945	U48710		AF284010
	Tapir, <i>Tapirus pinchaque</i>		AF179294		
	White Rhino, <i>Ceratotherium simum</i>			U31604	
Pholidota	Pangolin, <i>Manis</i> sp.	AJ251185	AF025389	U97535	AF284009
Primates	Galago, <i>Otolemur crassicaudatus</i>		Z11805	AF061064	AF019080
	Human, <i>Homo sapiens</i>	M34041	J05253	M25851	U14680
	Slow loris, <i>Nycticebus coucang</i>	AJ251186			
Proboscidea	African elephant, <i>Loxodonta africana</i>		U48711	U31615	AF284021
	Asian elephant, <i>Elephas maximus</i>	Y12525			
Rodentia	Agouti, <i>Dasyprocta agouti</i>			U31607	
	Guinea pig, <i>Cavia porcellus</i>	AJ271336			
	Mouse, <i>Mus musculus</i>		Z11813		
	North American Porcupine, <i>Erethizon dorsatum</i>		AF179292		
	Old World Porcupine, <i>Hystrix africaeaustralis</i>				AF284004
	Rat, <i>Rattus norvegicus</i>	M32061		U50044	AF036760
Scandentia	Tree shrew, <i>Tupaia glis</i>		Z11808	AF061063	
	Tree shrew, <i>Tupaia tana</i>	AJ251187			AF284006
Sirenia	Dugong, <i>Dugong dugon</i>	Y15947	U48583	U31608	AF284019
Tubulidentata	Aardvark, <i>Orycteropus afer</i>	Y12522	U48712	U31617	AF284030
Xenarthra	Three toed sloth, <i>Bradypus tridactylus</i>	AJ251179	U48708	U31603	AF284002

**Table b. Accession numbers of the sequences of the “Murphy” data set.**

Order	Species	ADORA3	ATP7A	BDNF	CNR1	EDG1	ZFX
Carnivora	Cat, <i>Felis catus</i>	AY011246	AY011433	AY011496	AY011615	AY011738	AY012085
	Dog, <i>Canis domesticus</i>	AY011249	AY011436	AY011499	AY011618	AY011741	AY012088
	Jaguar, <i>Panthera onca</i>	AY011248	AY011435	AY011498	AY011617	AY011740	AY012087
	Ocelot, <i>Leopardus pardalis</i>	AY011247	AY011434	AY011497	AY011616	AY011739	AY012086
Cetartiodactyla	Bottle-nosed dolphin, <i>Tursiops truncatus</i>	AY011237	AY011424	AY011487	AY011607	AY011730	AY012076
	Hippopotamus, <i>Hippopotamus amphibius</i>	AY011238	AY011425	AY011488	AY011608	AY011731	AY012077
	Okapi, <i>Okapia johnstoni</i>	AY011242	AY011429	AY011492	AY011611	AY011734	AY012081
Chiroptera	Pig, <i>Sus scrofa</i>	AY011241	AY011428	AY011491	AY011610	AY011733	AY012080
	Flying fox, <i>Pteropus giganteus</i>	AY011233	AY011420	AY011483	AY011603	AY011727	AY012074
	Jamaican fruit-eating bat, <i>Artibeus jamaicensis</i>	AY011232	AY011419	AY011482	AY011602	AY011726	AY012073
	Roussette fruit bat, <i>Rousettus lanosus</i>	AY011234	AY011421	AY011484	AY011604	AY011728	AY012075
Didelphimorphia	Large American Opossum, <i>Didelphis virginiana</i>	AY011189	AY011375	AY011439	AY011558	AY011685	AY012034
Hyracoidea	Hyrax, <i>Procavia capensis</i>	AY011203	AY011389	AY011452	AY011570	AY011697	AY012044
Insectivora	European shrew, <i>Sorex araneus</i>	AY011200	AY011386	AY011450	AY011567	AY011694	AY012042
	Star-nosed mole, <i>Condylura cristata</i>	AY011199	AY011385	AY011449	AY011566	AY011693	AY012041
Lagomorpha	Cottontail, <i>Sylvilagus cf. floridanus</i>	AY011223	AY011408	AY011472	AY011591	AY011716	AY012063
	Pika, <i>Ochotona hyperborea</i>	AY011222	AY011409	AY011473	AY011592	AY011717	AY012064
Macroscelidea	Long-eared Elephant shrew, <i>Elephantulus rufescens</i>	no data	AY011391	–	–	–	–

	Rond-eared Elephant shrew, <i>Macroscelides proboscideus</i>	AY011205	no data	AY011454	AY011572	AY011699	AY012046
Perissodactyla	Horse, <i>Equus caballus</i>	AY011243	AY011430	AY011493	AY011612	AY011735	AY012082
	Malayan tapir, <i>Tapirus indicus</i>	AY011245	AY011432	AY011495	AY011614	AY011737	AY012084
	White Rhino, <i>Ceratotherium sinum</i>	AY011244	AY011431	AY011494	AY011613	AY011736	AY012083
Pholidota	<i>Pangolin, Manis pentadactyla</i>	AY011251	AY011438	AY011501	AY011619	AY011742	AY012090
Primates	Crested gibbon, <i>Hylobates concolor</i>	AY011229	AY011416	AY011479	AY011599	AY011723	AY012070
	Goeldi's marmoset, <i>Callimico goeldi</i>	AY011230	AY011417	AY011480	AY011600	AY011724	AY012071
	Man, <i>Homo sapiens</i>	AY011231	AY011418	AY011481	AY011601	AY011725	AY012072
	Rhesus monkey, <i>Macaca mulatta</i>	AY011228	AY011415	AY011478	AY011598	AY011722	AY012069
	Ring-tailed lemur, <i>Lemur catta</i>	AY011225	AY011412	AY011476	AY011595	AY011720	AY012066
	Spider monkey, <i>Ateles fusciceps</i>	AY011227	AY011414	AY011477	AY011597	AY011721	AY012068
Proboscidea	African elephant, <i>Loxodonta africana</i>	AY011204	AY011390	AY011453	AY011571	AY011698	AY012045
Rodentia	Beaver, <i>Castor canadensis</i>	AY011208	AY011394	AY011458	AY011576	AY011703	AY012050
	Capybara, <i>Hydrochoerus hydrochaeris</i>	AY011218	AY011405	AY011469	AY011587	AY011713	AY012059
	Chipmunk, <i>Tamias striatus</i>	AY011207	AY011393	AY011457	AY011575	AY011702	AY012049
	Hazel dormouse, <i>Muscardinus avellanarius</i>	AY011209	AY011395	AY011459	AY011577	AY011704	AY012051
	Mouse, <i>Mus musculus</i>	AY011211	AY011397	AY011461	AY011579	AY011706	AY012053
	Naked mole-rat, <i>Heterocephalus glaber</i>	AY011216	AY011403	AY011467	AY011585	AY011711	AY012057
	North American Porcupine, <i>Erethizon dorsatum</i>	AY011215	AY011401	AY011465	AY011583	AY011709	AY012056
	Paca, <i>Agouti taczanowskii</i>	AY011220	AY011407	AY011471	AY011590	AY011715	AY012062
	Rat, <i>Rattus norvegicus</i>	AY011212	AY011398	AY011462	AY011580	AY011707	AY012054

	Springhare, <i>Pedetes capensis</i>	AY011210	AY011396	AY011460	AY011578	AY011705	AY012052
	Wild cavy, <i>Cavia tschudii</i>	AY011217	AY011404	AY011468	AY011586	AY011712	AY012058
Scandentia	Tree shrew, <i>Tupaia minor</i>	AY011224	AY011411	AY011475	AY011594	AY011719	AY012065
Sirenia	West Indian manatee, <i>Trichechus manatus</i>	AY011202	AY011388	AY011451	AY011569	AY011696	AY012043
Tubulidentata	Aardvark, <i>Orycteropus afer</i>	AY011206	AY011392	AY011456	AY011574	AY011701	AY012048
	Hairy armadillo, <i>Chaetophractus villosus</i>	AY011194	AY011380	AY011444	AY011562	AY011689	AY012037
Xenarthra	Lesser anteater, <i>Tamandua tetradactyla</i>	AY011195	AY011381	AY011445	AY011563	AY011690	AY012038
	Six-banded armadillo, <i>Euphractus sexcinctus</i>	AY011193	AY011379	AY011443	AY011561	AY011688	AY012036

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**Table c. Accession numbers of the sequences of the mitochondrial data set.**

Order	Species	accession number
Carnivora	Cat, <i>Felis catus</i>	U20753
	Dog, <i>Canis familiaris</i>	U96639
	Grey seal, <i>Halichoerus grypus</i>	X72004
	Harbor seal, <i>Phoca vitulina</i>	X63726
Cetartiodactyla	Alpaca, <i>Lama pacos</i>	Y19184
	Blue whale, <i>Balaenoptera musculus</i>	X72204
	Cow, <i>Bos taurus</i>	J01394
	Fin whale, <i>Balaenoptera physalus</i>	X61145
	Hippopotamus, <i>Hippopotamus amphibius</i>	AJ010957
	Pig, <i>Sus scrofa</i>	AJ002189
	Sheep, <i>Ovis aries</i>	AF010406
	Sperm whale, <i>Physeter catodon</i>	AJ277029
	Chiroptera	Horseshoe bat, <i>Rhinolophus pumilus</i>
Jamaican fruit-eating bat, <i>Artibeus jamaicensis</i>		AF061340
Japanese pipistrelle, <i>Pipistrellus abramus</i>		AB061528
Little red flying fox, <i>Pteropus scapulatus</i>		AF321050
Long-tailed bat, <i>Chalinolobus tuberculatus</i>		AF321051
Ryukyu flying fox, <i>Pteropus dasymallus</i>		AB042770
Didelphimorphia		Large American Opossum, <i>Didelphis virginiana</i>
	Diprotodontia	Northern brown bandicoot, <i>Isodon macrourus</i>
Wallaroo, <i>Macropus robustus</i>		Y10524
Insectivora	Asiatic shrew, <i>Soriculus fumidus</i>	AF348081
	European mole, <i>Talpa europaea</i>	Y19192
	Gymnure, <i>Echinosorex gymnura</i>	AF348079
	Hedgehog, <i>Erinaceus europaeus</i>	X88898
	Long-clawed shrew, <i>Sorex unguiculatus</i>	AB061527
Lagomorpha	American pika, <i>Ochotona princeps</i>	AF348080
	Rabbit, <i>Oryctolagus cuniculus</i>	AJ001588
Ornithorhynchidae	Platypus, <i>Ornithorhynchus anatinus</i>	X83427
Perissodactyla	Donkey, <i>Equus asinus</i>	X97337
	Horse, <i>Equus caballus</i>	X79547
	Indian rhinoceros, <i>Rhinoceros unicornis</i>	X97336
	White rhinoceros, <i>Ceratotherium simum</i>	Y07726
Primates	Baboon, <i>Papio hamadryas</i>	Y18001
	Barbary ape, <i>Macaca sylvanus</i>	AJ309865
	Bonobo, <i>Pan paniscus</i>	D38116
	Bornean orangutan, <i>Pongo pygmaeus</i>	D38115

	Chimpanzee, <i>Pan troglodytes</i>	D38113
	Common gibbon, <i>Hylobates lar</i>	X99256
	Gorilla, <i>Gorilla gorilla</i>	D38114
	Man, <i>Homo sapiens</i>	D38112
	Slow loris, <i>Nycticebus coucang</i>	AJ309867
	Sumatran orangutan, <i>Pongo pygmaeus abelii</i>	X97707
	White-fronted capuchin, <i>Cebus albifrons</i>	AJ309866
Proboscidea	African elephant, <i>Loxodonta africana</i>	AJ224821
Rodentia	Cane rat, <i>Thryonomys swinderianus</i>	AJ301644
	Fat dormouse, <i>Glis glis</i>	AJ001562
	Guinea pig, <i>Cavia porcellus</i>	AJ222767
	Mouse, <i>Mus musculus</i>	J01420
	Rat, <i>Rattus norvegicus</i>	X14848
	Red squirrel, <i>Sciurus vulgaris</i>	AJ238588
	Vole, <i>Volemys kikuchii</i>	AF348082
Scandentia	Tree shrew, <i>Tupaia belangeri</i>	AF217811
Tenrecomorpha	Small Madagascar hedgehog, <i>Echinops telfairi</i>	AJ400734
Tubulidentata	Aardvark, <i>Orycteropus afer</i>	Y18475
Xenarthra	Nine-banded armadillo, <i>Dasypus novemcinctus</i>	Y11832

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