

Supplement

Table 1: References for mtDNA sequences and substitution rates. Note: Empty cells correspond to species showing equilibrium in evolution that did not require a substitution rate

Species	Common name	mtDNA region	mtDNA Accession numbers	Reference	Substitution rate	Reference
<i>Aotus azarai azarai</i>	Owl monkey	Control region	JN161069-JN161098	[2]	2.16E-01 ± 1E-01	[2]
<i>Balaenoptera musculus</i>	Antarctic blue whale	Control region	JN801048-JN801070	[27]	2.90E-02	[12]
<i>Callorhinus ursinus</i>	Northern fur seals	Control region	EU791990-EU792321	[6]	2.90E-02	[6]
<i>Capreolus capreolus</i>	European roe deer	D-loop	JX971589-JX971615	[13]		
<i>Capreolus pygargus</i>	Siberian roe deer	Control region	JX428900-JX428927	[13]	6.00E-02 ± 2.00E-02	[22]
<i>Cervus elaphus</i>	Elk	Control region	JX125702-JX126108	[11]	4.80E-03 ± 0.7E-03	[7]
<i>Chlorocebus pygerythrus</i>	Vervet monkey	D-loop	KP231259-KP231284	[9]		
<i>Equus quagga</i>	Zebra	D-loop	EU650488-EU650599	[16]	1.70E-02 ± 7E-03	[21]
<i>Gorilla gorilla gorilla</i>	Gorilla	Control region: HV1	EU305296-EU305397	[1]		
<i>Homo sapiens</i>	Humans	D-loop: HV1	M76235-M76368	[29]	1.64E-01	[26]
<i>Hyllobates agilis</i>	Agile gibbon	Control region:HV1	EF363485-EF363509	[32]		
<i>Hyllobates lar</i>	Lar gibbon	D-loop	AB720992-AB721002	[17]		
<i>Lepus capensis</i>	Cape hare	D-loop	HM233286-HM233263	[14]		
<i>Loxodonta africana</i>	African Elephant	Control region	AF106203-AF106245	[20]		
<i>Macaca mulatta</i>	Rhesus macaque	D-loop	JF746816- JF746845, JF834912- JF834921	[34]		
<i>Macropus rufus</i>	Red kangaroo	Control region	AJ225130- AJ225163	[5]	1.80E-02	[5]
<i>Microcebus murinus</i>	Grey mouse lemurs	D-loop	JF796804-JF796850	[25]		
<i>Microcebus ravelobensis</i>	Golden-brown mouse lemur	D-loop	EF065308- EF065385	[10]		
<i>Myotis lucifugus</i>	Little brown bat	Control region: HV2	EF471399-EF471445	[28]		
<i>Nanger granti</i>	Gazelles	Control region	EU029806-EU029940	[16]		
<i>Odocoileus virginianus</i>	White tailed deer	D-Loop	JN088006-JN088047	[4]		
<i>Pantera leo</i>	Lion	Control Region: HVR1	DQ899900 - DQ899923	[3]		
<i>Phocoena phocoena</i>	Harbor porpoise	Control region	FJ214731-FJ214801	[24]		[30]
<i>Pongo abelii</i>	Sumatran orangutan	D-loop: HV1	JQ962945-JQ962972	[19]		
<i>Pongo pygmaeus</i>	Bornean orangutan	D-loop	AJ391123, AJ391124-5, AJ391098, AJ391100-03, AJ391105-10, AJ391113-18, AJ391120-21, AJ391132-34, AJ391136.2-37.2	[31]	3.30E-01	[31]
<i>Rattus exulans</i>	Pacific rat	D-loop	AY604202-AY604233	[23]		
<i>Rhinopithecus bieti</i>	Black snub nosed monkey	D-loop	DQ661651-DQ661680	[15]	1.55E-01 ± 9.5E-02	[33]
<i>Sus scrofa</i>	South Asian pigs	Control region	JQ238237-JQ238602	[8]		
<i>Tarsius dentatus</i>	Diana tarsier	Control region: HV1	FJ614477-FJ614489, FJ614493-FJ614494, FJ614497-FJ614500, FJ614502-FJ614509	[18]		
<i>Tarsius lariang</i>	Sulawesi tarsier	Control region: HV1	FJ614403- FJ614444	[18]		

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