

Table S4. Summary of the 13 key amino acid sites for rhodopsins. For λ_{\max} values, those predicted from this study are given in bold and those from the literature are in plain text. Amino acids identical to the mammalian consensus are indicated by a point (.), n/a represents missing data.

Species	8 3	9 6	1 0	1 2	1 8	1 9	1 9	2 5	2 6	2 8	2 9	2 9	3 1	λ_{\max} (measured)	λ_{\max} (predicted)
Consensus	D	Y	Y	E	M	L	K	M	F	T	A	S	M		
<i>Hipposideros larvatus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Hipposideros pratti</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Rhinolophus pusillus</i>	.	.	.	.	L	.	.	.	.	.	.	.	.	499	
<i>Rhinolophus ferrumequinum</i>	.	.	.	.	L	.	.	.	.	.	.	.	.	499	
<i>Megaderma spasma</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Eonycteris spelaea</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Rousettus leschenaultii</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Nyctimene cephalotes</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Dobsonia viridis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Cynopterus brachyotis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Myotis ricketti</i>	N	.	.	.	.	.	.	.	.	.	A	.	.	497	
<i>Taphozous melanopogon</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Miniopterus fuliginosus</i>	.	.	.	.	L	.	.	.	.	.	.	.	.	499	
<i>Chaerephon plicatus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Artibeus jamaicensis</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Pusa hispida</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501 ^a	
<i>Phoca vitulina</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501 ^b	501 ^a
<i>Pagophilus groenlandica</i>	.	.	.	.	.	.	.	.	.	.	A	.	.	498 ^b	499 ^a
<i>Erignathus barbatus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Hydrurga leptonyx</i>	.	.	.	.	L	.	.	.	.	.	.	.	.	499 ^a	
<i>Leptonychotes weddellii</i>	.	.	.	.	L	.	.	.	.	.	.	.	.	495, 496 ^c	499 ^a
<i>Mirounga angustirostris</i>	.	.	.	.	L	.	.	.	.	.	S	.	.	483 ^d	487 ^a
<i>Odobenus rosmarus</i>	N	.	.	.	.	.	.	.	.	.	.	.	.	499 ^a	
<i>Zalophus californianus</i>	N	.	.	.	.	.	.	.	.	.	.	.	.	499 ^a	499 ^e
<i>Ursus maritimus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501 ^a	
<i>Enhydra lutris</i>	.	.	.	.	.	N	.	.	.	.	.	.	.	501 ^a	
<i>Canis lupus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	508 ^f	501 ^a
<i>Felis catus</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	501	
<i>Delphinus delphis</i>	N	.	.	.	.	S	.	.	S	.	.	.	.	489 ^g	
<i>Tursiops truncatus</i>	N	.	.	.	.	S	R	.	.	S	.	.	.	488, 489 ^g	
<i>Globicephala melas</i>	N	.	.	.	.	S	R	.	.	S	.	.	.	488 ^g	
<i>Mesoplodon bidens</i>	N	.	.	.	P	S	.	.	S	A	.	.	.	484 ^g	485 ^a
<i>Equus caballus</i>	.	.	.	.	.	.	.	.	.	A	n/a	.	.	499	
<i>Bos taurus</i>	.	.	.	.	P	H	.	.	.	A	.	.	.	500 ^h	

Table S4 continued

Species	8 3	9 6	1 2	1 2	1 3	1 4	1 5	2 3	2 1	2 9	2 2	2 9	3 9	λ_{\max} (measured)	λ_{\max} (predicted)
<i>Sus scrofa</i>	L	.	.	.	.	.	.	.	.	.	499
<i>Homo sapiens</i>	L	.	.	.	.	.	A	.	497 ⁱ		
<i>Pan troglodytes</i>	L	.	.	.	.	.	A	.	.	497	
<i>Macaca fascicularis</i>	L	.	.	.	.	.	.	.	.	500 ^j	499
<i>Macaca mulatta</i>	L	.	.	.	.	.	.	.	.	.	499
<i>Otolemur crassicaudatus</i>	501
<i>Loxodonta africana</i>	N	.	.	.	.	.	.	.	.	.	A	.	496 ^k	497	
<i>Trichechus manatus</i>	502 ^g	501
<i>Macroscelides proboscideus</i>	501
<i>Amblysomus hottentotus</i>	.	.	n/a	.	.	.	.	.	.	.	.	.	.	.	501
<i>Oryctolagus cuniculus</i>	502 ^f	501
<i>Bathyergus suillus</i>	P	.	.	.	.	.	.	.	.	498
<i>Cryptomys damarensis</i>	N	.	.	.	P	.	.	.	.	.	.	.	.	.	496
<i>Heliophobius argenteocinereus</i>	N	.	.	.	P	.	.	.	.	.	.	.	.	.	496
<i>Heterocephalus glaber</i>	P	.	.	.	.	.	.	.	.	.	498
<i>Cavia porcellus</i>	N	.	.	.	.	.	.	.	.	.	.	.	.	.	499
<i>Thryonomys swinderianus</i>	501
<i>Rattus norvegicus</i>	498 ^f	501
<i>Mus musculus</i>	498 ^f	501
<i>Cricetulus griseus</i>	501
<i>Spalax ehrenbergi</i>	501
<i>Caluromys philander</i>	A	.	.	.	.	499
<i>Monodelphis domestica</i>	501
<i>Sminthopsis crassicaudata</i>	.	V	.	.	.	N	512 ^l	
<i>Ornithorhynchus anatinus</i>	N	R	.	.	.	A	

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