



APPENDIX 1

Origin of isolates used in molecular epidemiology analysis

VIRUS CODE	GENOTYPE	HOST SPECIES	YEAR OF ISOLATION	GEOGRAPHIC LOCATION	REFERENCE/SOURCE	GENBANK ACCESSION NUMBER
9137ALG	1	Dog	1982	Algeria	Kissi <i>et al.</i> , 1995	RVU22643(N)
A1.IB	1	Insectivorous bat	1985	Argentina	Nadin-Davis <i>et al.</i> , 2002	AF369361(P)
ARG1.BT	1	Bat	1991	Argentina	Badrane and Tordo, 2001	AF325493(G)
ARC1.PF	1	Artic fox	?	Artic circle	Badrane and Tordo, 2001	AF325486(G)
00-132366	7	<i>Pteropus alecto</i>	2000	Australia	Barrett, 2004	AY573936(N)
00-176632	7	<i>Pteropus alecto</i>	2000	Australia	Barrett, 2004	AY573962(N)
97-116174	7	<i>Pteropus scapulatus</i>	1997	Australia	Barrett, 2004	AY573951(N)
97-116375	7	<i>Saccoaimus flaviventris</i>	1997	Australia	Barrett, 2004	AY573965(N)
97-121016	7	<i>Pteropus scapulatus</i>	1997	Australia	Barrett, 2004	AY573946(N)
97-125092	7	<i>Pteropus alecto</i>	1997	Australia	Barrett, 2004	AY573964(N)
97-143816	7	<i>Saccoaimus flaviventris</i>	1997	Australia	Barrett, 2004	AY573937(N)
97-152661	7	<i>Pteropus alecto</i>	1997	Australia	Barrett, 2004	AY573940(N)
97-1555574	7	<i>Pteropus alecto</i>	1997	Australia	Barrett, 2004	AY573942(N)
97-176292	7	<i>Pteropus poliocephalus</i>	1997	Australia	Barrett, 2004	AY573958(N)
97-186955	7	<i>Pteropus poliocephalus</i>	1997	Australia	Barrett, 2004	AY573948(N)
97-192894	7	<i>Pteropus poliocephalus</i>	1997	Australia	Barrett, 2004	AY573941(N)
98-102890	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573955(N)
98-105331	7	<i>Pteropus poliocephalus</i>	1998	Australia	Barrett, 2004	AY573950(N)
98-126853	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573956(N)
98-137634	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573963(N)
98-140331	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573943(N)
98-144576	7	<i>Saccoaimus flaviventris</i>	1998	Australia	Barrett, 2004	AY573949(N)
98-167351	7	<i>Pteropus poliocephalus</i>	1998	Australia	Barrett, 2004	AY573945(N)
98-172971	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573959(N)
98-182934	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573952(N)
98-183454	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573960(N)
98-188455	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573935(N)
98-189702	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573957(N)
98-189710	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573939(N)
98-189756	7	<i>Pteropus alecto</i>	1998	Australia	Barrett, 2004	AY573947(N)
98-40635	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573944(N)
98-50290	7	<i>Pteropus scapulatus</i>	1998	Australia	Barrett, 2004	AY573953(N)
99-128813	7	<i>Pteropus alecto</i>	1999	Australia	Barrett, 2004	AY573954(N)
99-178735	7	<i>Pteropus alecto</i>	1999	Australia	Barrett, 2004	AY573961(N)
99-204785	7	<i>Pteropus alecto</i>	1999	Australia	Barrett, 2004	AY573938(N)
ABLBallina	7	<i>Pteropus alecto</i>	1996	Australia	Gould <i>et al.</i> , 1998	AF006497(G) AF006497(N) AF006497(P) AF006497(M)
ABLPA01MB	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426290(G)
ABLPA05GC	7	<i>Pteropus alecto</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426293(G)
ABLPA06BN	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426294(G)
ABLPA14RH	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426300(G)
ABLPA17TV	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426302(G)
ABLPA22BN	7	<i>Pteropus alecto</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426304(G)
ABLPA26GC	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426306(G)
ABLPA32TV	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426307(G)
ABLPA34GS	7	<i>Pteropus alecto</i>	1999	Australia	Guyatt <i>et al.</i> , 2003	AF426308(G)
ABLPA35HB	7	<i>Pteropus alecto</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426309(G)
ABLPA36BN	7	<i>Pteropus alecto</i>	2000	Australia	Guyatt <i>et al.</i> , 2003	AF426310(G)
ABLPA37GS	7	<i>Pteropus alecto</i>	2000	Australia	Guyatt <i>et al.</i> , 2003	AF426311(G)
ABLPP02BD	7	<i>Pteropus poliocephalus</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426291(G)
ABLPP07BN	7	<i>Pteropus poliocephalus</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426295(G)
ABLPP08GC	7	<i>Pteropus poliocephalus</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426296(G)
ABLPP13BN	7	<i>Pteropus poliocephalus</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426299(G)
ABLPS03TV	7	<i>Pteropus scapulatus</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426292(G)
ABLPS19WE	7	<i>Pteropus scapulatus</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426303(G)
ABLPS24WE	7	<i>Pteropus scapulatus</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426305(G)
ABLSF11KW	7	<i>Saccoaimus flaviventris</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426297(G)
ABLSF12NB	7	<i>Saccoaimus flaviventris</i>	1997	Australia	Guyatt <i>et al.</i> , 2003	AF426298(G)
ABLSF15AR	7	<i>Saccoaimus flaviventris</i>	1998	Australia	Guyatt <i>et al.</i> , 2003	AF426301(G)



AF081020	7	<i>Saccoilimus flaviventris</i>	1996	Australia	Gould <i>et al.</i> , 2002	NC_003243(N) NC_003243(P) NC_003243(M) NC_003243(G)
V478	7	<i>Pteropus sp</i>	1996	Australia	Nadin-Davis <i>et al.</i> , 2002	AF369371(P)
V481	7	Human	1996	Australia	Nadin-Davis <i>et al.</i> , 2002	AF369373(P)
V474.ABLV	7	<i>Pteropus sp</i>	1996	Australia	Nadin-Davis <i>et al.</i> , 2002	AF369369(P)
V476.ABLV	7	<i>Pteropus sp</i>	1996	Australia	Nadin-Davis <i>et al.</i> , 2002	AF369370(P)
V480.ABLV	7	<i>Pteropus sp</i>	1996	Australia	Nadin-Davis <i>et al.</i> , 2002	AF369372(P)
8697BEN	1	Cat	1986	Benin	Kissi <i>et al.</i> , 1995	RVU22485(N)
86111YOU	1	Red Fox	1986	Bosnia-Hersegovina	Bourhy <i>et al.</i> , 1999	RVU42706(N)
V055	1	Human	1992	Botswana	Nadin-Davis <i>et al.</i> , 2002	AF369305(P)
V039.GT	1	Genet	1992	Botswana	Nadin-Davis <i>et al.</i> , 2002	AF369304(P)
V037.MG	1	Mongoose	1991	Botswana	Nadin-Davis <i>et al.</i> , 2002	AF369300(P)
8611BR	1	Vampire bat	1985	Brazil	Kissi <i>et al.</i> , 1995	RVU22479(N)
86123BR	1	Dog	1985	Brazil	Kissi <i>et al.</i> , 1995	RVU22862(N)
AF070449	1	<i>Desmodus rotundus</i>	?	Brazil	Warner <i>et al.</i> , 2003	AF070449(N)
B1.DG	1	Dog	1993	Brazil	Nadin-Davis <i>et al.</i> , 2002	AF369314(P)
B2.VB	1	Bovine	1993	Brazil	Nadin-Davis <i>et al.</i> , 2002	AF369365(P)
BRA1.BV	1	Bovine	1986	Brazil	Badrane and Tordo, 2001	AF325491(G)
BR-AL2	1	<i>Artibeus lituratus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB117971(N)
BR-AL3	1	<i>Artibeus lituratus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB117971(N)
BR-AL4	1	<i>Artibeus lituratus</i>	2002	Brazil	Kobayashi <i>et al.</i> , 2005	AB201802(N)
BR-AL1	1	<i>Artibeus lituratus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB117969(N)
BR-AP1	1	<i>Artibeus planirostris</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB117972(N)
BR-BAT1	1	<i>Desmodus rotundus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB201819(N)
BR-BAT2	1	<i>Desmodus rotundus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB201820(N)
BRBV32	1	Cattle	?	Brazil	Sato <i>et al.</i> , 2004	AB110663(N)
BRBv39	1	Cattle	?	Brazil	Sato <i>et al.</i> , 2004	AB110666(N)
BRBv49	1	Cattle	?	Brazil	Sato <i>et al.</i> , 2004	AB110668(N)
BRBv50	1	Cattle	?	Brazil	Sato <i>et al.</i> , 2004	AB110667(N)
BR-DR2	1	<i>Desmodus rotundus</i>	2002	Brazil	Kobayashi <i>et al.</i> , 2005	AB201804(N)
BR-DR3	1	<i>Desmodus rotundus</i>	2001	Brazil	Kobayashi <i>et al.</i> , 2005	AB201804(N)
BR-DRI	1	<i>Desmodus rotundus</i>	2000	Brazil	Kobayashi <i>et al.</i> , 2005	AB201803(N)
BR-EA1	1	<i>Eumops auripendulus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB201809(N)
BR-EA2	1	<i>Eumops auripendulus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB201810(N)
BR-EF1	1	<i>Eptesicus furinalis</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB201811(N)
BR-EF2	1	<i>Eptesicus furinalis</i>	2001	Brazil	Kobayashi <i>et al.</i> , 2005	AB201812(N)
BR-EF3	1	<i>Eptesicus furinalis</i>	2001	Brazil	Kobayashi <i>et al.</i> , 2005	AB201813(N)
BR-EF4	1	<i>Eptesicus furinalis</i>	2002	Brazil	Kobayashi <i>et al.</i> , 2005	AB201814(N)
BRhr31	1	Horse	?	Brazil	Sato <i>et al.</i> , 2004	AB110662(N)
BR-MA1	1	<i>Molossus abrasus</i>	2000	Brazil	Kobayashi <i>et al.</i> , 2005	AB201818(N)
BR-MM1	1	<i>Molossus molossus</i>	1999	Brazil	Kobayashi <i>et al.</i> , 2005	AB201815(N)
BR-MM2	1	<i>Molossus molossus</i>	2002	Brazil	Kobayashi <i>et al.</i> , 2005	AB201816(N)
BR-MR1	1	<i>Molossus rufus</i>	2002	Brazil	Kobayashi <i>et al.</i> , 2005	AB201817(N)
BR-NL1	1	<i>Nyctinomops laticaudatus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB201806(N)
BR-NL2	1	<i>Nyctinomops laticaudatus</i>	1999	Brazil	Kobayashi <i>et al.</i> , 2005	AB201807(N)
BR-NL3	1	<i>Nyctinomops laticaudatus</i>	2001	Brazil	Kobayashi <i>et al.</i> , 2005	AB201808(N)
BRpg28	1	Pig	?	Brazil	Sato <i>et al.</i> , 2004	AB110661(N)
BRSP35	1	Sheep	?	Brazil	Sato <i>et al.</i> , 2004	AB110665(N)
BRvmbt33	1	<i>Desmodus rotundus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB083806(N)
BRvmbt33	1	<i>Desmodus rotundus</i>	?	Brazil	Sato <i>et al.</i> , 2004	AB110664(N)
BRvmbt34	1	<i>Desmodus rotundus</i>	1998	Brazil	Kobayashi <i>et al.</i> , 2005	AB083807(N)
BRvmbt41	1	<i>Desmodus rotundus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB083812(N)
BRvmbt46	1	<i>Desmodus rotundus</i>	?	Brazil	Kobayashi <i>et al.</i> , 2005	AB083815(N)
DR.Braz	1	<i>Desmodus rotundus</i>	1986	Brazil	Nadin-Davis <i>et al.</i> , 2001	AF351847(N)
8636HAV	1	Dog	1986	Burkina Fasso	Kissi <i>et al.</i> , 1995	RVU22486(N)
CAM1-UN	1	Dog	1988	Cameroon	Badrane and Tordo, 2001	AF325481(G)
8801CAM	1	Dog	1987	Cameroon	Kissi <i>et al.</i> , 1995	RVU22634(N)
8804CAM	1	Cat	1988	Cameroon	Kissi <i>et al.</i> , 1995	RVU22635(N)
8805CAM	1	?	1988	Cameroon	Kissi <i>et al.</i> , 1995	RVU22636(N)
91RABN1578	1	?	1991	Canada	Nadin-Davis <i>et al.</i> , 1997	AF360850(M)
90RABN9285	1	Fox	1990	Canada	Nadin-Davis <i>et al.</i> , 1997, 1999	AF360851(M) RVU11756(G)
90RABN9196	1	Fox	1990	Canada	Nadin-Davis <i>et al.</i> , 1997,1999	AF360853(M) RVU11758(G)
91RABN8480	1	?	1991	Canada	Nadin-Davis <i>et al.</i> , 1997	AF360854(M)
93RABN1090	1	?	1993	Canada	Nadin-Davis <i>et al.</i> , 1997	AF360855(M)
91RABN3899	1	Artic fox	1991	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11743(G)
91RABN6921	1	Artic fox	1991	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11747(G)
91RABN0730	1	Artic fox	1991	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11748(G)
90RABN5803	1	Fox	1990	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11753(G)
90RABN5850	1	FoX	1990	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11754(G)
91RABN1579	1	Fox	1991	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11755(G)
V125	1	?	?	Canada	Nadin-Davis <i>et al.</i> , 1997	AF360865(M)
058.BBB	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369338(P)
1090DG	1	Dog	?	Canada	Nadin-Davis <i>et al.</i> , 1994	RVU03769(N) RVU03766(G)
1741WC.SK	1	Striped skunk	1992	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369286(P)



2994.BBB	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369339(P)
3694.MYO	1	<i>Myotis sp</i>	1996	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369349(P)
4055DG	1	Dog	?	Canada	Nadin-Davis <i>et al.</i> , 1994	RVU03767(G) RVU03770(N)
4398.SHB	1	<i>Lasionycteris noctivagans</i>	1980	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369345(P)
4805.BBB	1	<i>Eptesicus fuscus</i>	1995	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369350(P)
4887.LLB	1	<i>Myotis lucifugus</i>	1994	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369344(P)
6199	1	Fox	?	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11734(N)
6832.RB	1	<i>Lasiurus borealis</i>	1991	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369351(P)
7890.LBB	1	<i>Myotis lucifugus</i>	1997	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369352(P)
867WC.SK	1	Striped Skunk	1992	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369285(P)
90RABN9239	1	Artic fox	?	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11750(G)
9105CAN	1	Red fox	1990	Canada	Kissi <i>et al.</i> , 1995	RVU22655(N)
91RABN0783	1	Artic fox	?	Canada	Nadin-Davis <i>et al.</i> , 1993	U11757(G) AF360849(M)
91RABN1035	1	Artic fox	?	Canada	Nadin-Davis <i>et al.</i> , 1999	RVU11736(G)
9293FX	1	Fox	?	Canada	Nadin-Davis <i>et al.</i> , 1994	RVU03764(G)
92RABL1741	1	Skunk	?	Canada	Nadin-Davis <i>et al.</i> , 1997	AF344306(N) AF344305(G) AF360849(M)
92RBGL0867	1	Skunk	?	Canada	Nadin-Davis <i>et al.</i> , 1999	AF344307(G)
9499.MYO	1	Red fox	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369353(P)
ARC5.AFX	1	Artic fox	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369270(P)
CF1	1	Dog	1998	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351848(N)
EF1	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351827(N)
EF12	1	<i>Eptesicus fuscus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351834(N)
EF19	1	<i>Eptesicus fuscus</i>	1991	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351855(N)
EF22	1	<i>Eptesicus fuscus</i>	1988	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351830(N)
EF31	1	<i>Eptesicus fuscus</i>	1989	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351831(N)
EF32	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351828(N)
EF33	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351829(N)
EF34	1	<i>Eptesicus fuscus</i>	1972	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351832(N)
EF40	1	<i>Eptesicus fuscus</i>	1995	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351862(N)
EF55	1	<i>Eptesicus fuscus</i>	1997	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351853(N)
EF57	1	<i>Eptesicus fuscus</i>	1997	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351859(N)
L20672	1	Fox	?	Canada	Nadin-Davis <i>et al.</i> , 1993	L20672(N)
LAN12	1	<i>Lasionycteris noctivagans</i>	1988	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351840(N)
LAN13	1	<i>Lasionycteris noctivagans</i>	1980	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351841(N)
LAN8	1	<i>Lasionycteris noctivagans</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351842(N)
LB1	1	<i>Lasiurus borealis</i>	1994	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351844(N)
LB6	1	<i>Lasiurus cinereus</i>	1991	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351856(N)
LC1	1	<i>Lasiurus cinereus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351845(N)
LC2	1	<i>Lasiurus cinereus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351846(N)
LC8	1	<i>Lasiurus cinereus</i>	1996	Canada	Nadin-Davis <i>et al.</i> , 2001	AF35158(N)
MC2	1	<i>Myotis californicus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351836(N)
ME1	1	<i>Myotis evotis</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351835(N)
ML4	1	<i>Myotis lucifugus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351839(N)
ML5	1	<i>Lasionycteris noctivagans</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351833(N)
ML6	1	<i>Myotis lucifugus</i>	1994	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351838(N)
ML7	1	<i>Lasionycteris noctivagans</i>	1979	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351837(N)
ONT1.RFX	1	Red fox	1991	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369265(P)
ONT2.RFX	1	Red fox	1990	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369266(P)
ONT3.RFX	1	Red fox	1991	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369267(P)
ONT4.RFX	1	Red fox	1990	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369268(P)
ONT5.RFX	1	Red fox	1991	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369269(P)
RAVN5850SK	1	Skunk	?	Canada	Nadin-Davis <i>et al.</i> , 1993	L20671(N)
V077.SHB	1	<i>Lasionycteris noctivagans</i>	1988	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369346(P)
V078.BBB	1	<i>Eptesicus fuscus</i>	1988	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369341(P)
V084.BBB	1	<i>Eptesicus fuscus</i>	1989	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369340(P)
V089.LBB	1	<i>Myotis lucifugus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369343(P)
V102.MYO	1	<i>Myotis evotis</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369354(P)
V103.HB	1	<i>Lasiurus cinereus</i>	1992	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369347(P)
V151.BBB	1	<i>Eptesicus fuscus</i>	1989	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369355(P)
V158.SHB	1	<i>Lasionycteris noctivagans</i>	1991	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369356(P)
V170.BBB	1	<i>Eptesicus fuscus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369357(P)
V179.LBB	1	<i>Myotis lucifugus</i>	1993	Canada	Nadin-Davis <i>et al.</i> , 2002	AF369358(P)
VV2	1	Fox	1993	Canada	Nadin-Davis <i>et al.</i> , 2001	AF351851(N)
9228CAF	1	Dog	1992	Central African Republic	Kissi <i>et al.</i> , 1995	RVU22650(N)
9229CAF	1	Dog	1992	Central African Republic	Kissi <i>et al.</i> , 1995	RVU22651(N)
LBVCAR1974	2	<i>Micropterus pusillus</i>	1974	Central African Republic	This study	EF547449(N) EF547417(P) EF547443(M) EF547430(G)
AF070450	1	<i>Tadarida brasiliensis</i>	?	Chile	Warner <i>et al.</i> , 2003	AF070450(N)
IB.CH	1	Insectivorous bat	1988	Chile	Nadin-Davis <i>et al.</i> , 2001	AF351850(N)
V013.IB	1	Insectivorous bat	1988	Chile	Nadin-Davis <i>et al.</i> , 2002	AF369360(P)
C1.DG	1	Mouse	1985	China	Nadin-Davis <i>et al.</i> , 2002	AF369316(P)
CHI1.BK	1	Buck	1986	China	Badrane and Tordo, 2001	AF325471(G)
CNX8511	1	?	?	China	Tang <i>et al.</i> , 2000	AY009099(G)



CTN	1	Dog/mouse	1983	China	Tang <i>et al.</i> , 2000	AY009100(G)
PG	1	?	?	China	Tang <i>et al.</i> , 2000	AY009097(G)
V285.RFX	1	Red fox	1992	CSFR	Nadin-Davis <i>et al.</i> , 2002	AF369273(P)
02007DEN	5	<i>Eptesicus serotinus</i>	1993	Denmark	Davis <i>et al.</i> , 2005	AY863317(G)
02010DEN	5	<i>Eptesicus serotinus</i>	1995	Denmark	Davis <i>et al.</i> , 2005	AY863315(N) AY863318(G)
02011DEN	5	<i>Eptesicus serotinus</i>	1997	Denmark	Davis <i>et al.</i> , 2005	AY863376(N) AY863319(G)
02012DEN	5	<i>Eptesicus serotinus</i>	1999	Denmark	Davis <i>et al.</i> , 2005	AY863377(N)
02013DEN	5	<i>Eptesicus serotinus</i>	1999	Denmark	Davis <i>et al.</i> , 2005	AY863378(N) AY863320(G)
02015DEN	5	<i>Eptesicus serotinus</i>	2000	Denmark	Davis <i>et al.</i> , 2005	AY863379(N)
02016DEN	5	Sheep	2002	Denmark	Davis <i>et al.</i> , 2005	AY863380(N) AY863321(G)
94109DEN	5	<i>Eptesicus serotinus</i>	1987	Denmark	Davis <i>et al.</i> , 2005	AY863316(G)
94110DEN	5	<i>Eptesicus serotinus</i>	1987	Denmark	Davis <i>et al.</i> , 2005	AY863374(N)
9479DEN	5	<i>Eptesicus serotinus</i>	1987	Denmark	Davis <i>et al.</i> , 2005	AY863373(N) AY863315(G)
V002	5	<i>Eptesicus serotinus</i>	1986	Denmark	Nadin-Davis <i>et al.</i> , 2002	AF049113(P)
V023	5	<i>Eptesicus serotinus</i>	1986	Denmark	Nadin-Davis <i>et al.</i> , 2002	AF049117(P)
8692EGY	1	Human	1979	Egypt	Kissi <i>et al.</i> , 1995	RVU22627(N)
LBVAFR1999	2	<i>Rousettus aegyptiacus</i>	1999	Egypt/Togo	This study	EF547447(N) EF547418(P) EF547443(M) EF547430(G)
9339EST	1	Raccoon dog	1991	Estonia	Bourhy <i>et al.</i> , 1999	RVU42707(N)
9342EST	1	Raccoon dog	1991	Estonia	Bourhy <i>et al.</i> , 1999	RVU43432(N)
ETH2003	1	Wolf	2003	Ethiopia	Randall <i>et al.</i> , 2004	AY500872(N)
8807ETH	1	Hyena	1987	Ethiopia	Kissi <i>et al.</i> , 1995	RVU22637(N)
V667.DG	1	Dog	?	Ethiopia	Nadin-Davis <i>et al.</i> , 2002	AF369331(P)
V674.DG	1	Dog	?	Ethiopia	Nadin-Davis <i>et al.</i> , 2002	AF369334(P)
V675	1	Serval	?	Ethiopia	Nadin-Davis <i>et al.</i> , 2002	AF369336(P)
V676	1	Jackal	?	Ethiopia	Nadin-Davis <i>et al.</i> , 2002	AF369335(P)
EthMok	3	Dog		Ethiopia	Kuzmin <i>et al.</i> , 2005	AY333111 (N)
9001GUY	1	Dog	1990	French Guyana	Kissi <i>et al.</i> , 1995	RVU22478(N)
9007FIN	6	Human	1986	Finland	Davis <i>et al.</i> , 2005	AY863406(N) AY863345(G)
EBL2BtFIN	6	Human	1986	Finland	Badrane <i>et al.</i> , 2001	AF298144(G)
0001FRA	5	<i>Eptesicus serotinus</i>	2000	France	Davis <i>et al.</i> , 2005	AY863396(N) AY863326(G)
0002FRA	5	<i>Eptesicus serotinus</i>	2000	France	Davis <i>et al.</i> , 2005	AY863397(N) AY863330(G)
0003FRA	5	<i>Eptesicus serotinus</i>	2000	France	Davis <i>et al.</i> , 2005	AY863398(N) AY863331(G)
0102FRA	5	<i>Eptesicus serotinus</i>	2000	France	Davis <i>et al.</i> , 2005	AY863399(N)
02031FRA	5	<i>Eptesicus serotinus</i>	2001	France	Davis <i>et al.</i> , 2005	AY863400(N) AY863329(G)
02032FRA	5	<i>Eptesicus serotinus</i>	2001	France	Davis <i>et al.</i> , 2005	AY863401(N) AY863325(G)
02033FRA	5	<i>Eptesicus serotinus</i>	2001	France	Davis <i>et al.</i> , 2005	AY863402(N) AY863333(G)
03002FRA	5	<i>Eptesicus serotinus</i>	2003	France	Davis <i>et al.</i> , 2005	AY863381(N) AY863322(G)
8661FRA	1	Hedgehog	1984	France	Bourhy <i>et al.</i> , 1999	RVU43434(N)
8663FRA	1	Red fox	1984	France	Bourhy <i>et al.</i> , 1999	RVU42605(N)
8918FRA	5	<i>Eptesicus serotinus</i>	1989	France	Davis <i>et al.</i> , 2005	AY863392(N) AY863341(G)
8919FRA	5	<i>Eptesicus serotinus</i>	1989	France	Davis <i>et al.</i> , 2005	AY863393(N) AY863342(G)
9147FRA	1	Red fox	1991	France	Kissi <i>et al.</i> , 1995	RVU22474(N) AF401286(G)
9223FRA	1	Red fox	1974	France	Bourhy <i>et al.</i> , 1999	RVU43433(N)
9244FRA	1	Red fox	1992	France	Bourhy <i>et al.</i> , 1999	RVU42607(N)
9445FRA	1	Red fox	1994	France	Bourhy <i>et al.</i> , 1999	RVU42700(N)
9603FRA	5	<i>Eptesicus serotinus</i>	1995	France	Davis <i>et al.</i> , 2005	AY863394(N) AY863328(G)
9616FRA	1	Sheep	1996	France	Kissi <i>et al.</i> , 1995	AF033905(N)
9906FRA	5	<i>Eptesicus serotinus</i>	1995	France	Davis <i>et al.</i> , 2005	AY863395(N) AY863332(G)
EBL1EsFRA	5	<i>Eptesicus serotinus</i>	1985	France	Badrane <i>et al.</i> , 2001	AF298143(G)
FRA1.FX	1	Fox	1991	France	Badrane and Tordo, 2001	AF325461(G)
V280.RFX	1	Red fox	1976	France	Nadin-Davis <i>et al.</i> , 2002	AF369278(P)
V282.RFX	1	Fox	1986	France	Nadin-Davis <i>et al.</i> , 2002	AF369279(P)
GUY1.BV	1	Bovine	1986	French Guyana	Badrane and Tordo, 2001	AF325490(G)
8693GAB	1	Dog	1986	Gabon	Kissi <i>et al.</i> , 1995	RVU22629(N)
8698GAB	1	Dog	1986	Gabon	Kissi <i>et al.</i> , 1995	RVU22638(N)
GAB1.DG	1	Dog	1986	Gabon	Badrane and Tordo, 2001	AF325470(G)
RV305	1	Dog	?	Georgia	Kuzmin <i>et al.</i> , 2004	AY352515(N)
RV307	1	Cow	?	Georgia	Kuzmin <i>et al.</i> , 2004	AY352516(N)
RV308	1	Human	?	Georgia	Kuzmin <i>et al.</i> , 2004	AY352497(N)



9202ALL	1	Red fox	1991	Germany	Bourhy <i>et al.</i> , 1999	RVU42701(N)
9212ALL	1	Red fox	1991	Germany	Kissi <i>et al.</i> , 1995	RVU22475(N)
9213ALL	1	Red fox	1991	Germany	Bourhy <i>et al.</i> , 1999	RVU42702(N)
9339GER	5	<i>Eptesicus serotinus</i>	1989	Germany	Davis <i>et al.</i> , 2005	AY863301(G)
9395GER	5	<i>Eptesicus serotinus</i>	1968	Germany	Marston <i>et al.</i> , 2007	EF157976(N) EF157976(P) EF157976(M) EF157976(G)
9396GER	5	<i>Eptesicus serotinus</i>	1985	Germany	Davis <i>et al.</i> , 2005	AY863349(N) AY863297(G)
9398GER	5	<i>Eptesicus serotinus</i>	1970	Germany	Davis <i>et al.</i> , 2005	AY863350(N) AY863298(G)
9399GER	5	<i>Eptesicus serotinus</i>	1982	Germany	Davis <i>et al.</i> , 2005	AY863351(N) AY863299(G)
9436GER	5	<i>Eptesicus serotinus</i>	1986	Germany	Davis <i>et al.</i> , 2005	AY863352(N)
9437GER	5	<i>Eptesicus serotinus</i>	1987	Germany	Davis <i>et al.</i> , 2005	AY863353(N) AY863300(G)
9438GER	5	<i>Eptesicus serotinus</i>	1988	Germany	Davis <i>et al.</i> , 2005	AY863354(N)
9440GER	5	<i>Eptesicus serotinus</i>	1989	Germany	Davis <i>et al.</i> , 2005	AY863355(N) AY863302(G)
9441GER	5	<i>Eptesicus serotinus</i>	1990	Germany	Davis <i>et al.</i> , 2005	AY863356(N) AY863303(G)
9477GER	5	<i>Eptesicus serotinus</i>	1986	Germany	Davis <i>et al.</i> , 2005	AY863357(N)
9481GER	5	<i>Eptesicus serotinus</i>	1990	Germany	Davis <i>et al.</i> , 2005	AY863358(N) AY863304(G)
8684GRO	1	Artic fox	1981	Greenland	Kissi <i>et al.</i> , 1995	RVU22654(N)
8660GUI	1	Dog	1986	Guinea	Kissi <i>et al.</i> , 1995	RVU22487(N)
9024GUI	1	Dog	1990	Guinea	Kissi <i>et al.</i> , 1995	RVU22641(N)
GU1.DG	1	Dog	1986	Guinea	Badrane and Tordo, 2001	AF325484(G)
9018HOL	6	<i>Myotis dasycneme</i>	1986	Holland	Badrane <i>et al.</i> , 2001	AF298145(G) RVU22847(N)
9383HON	1	Red fox	1993	Hungary	Bourhy <i>et al.</i> , 1999	RVU42998(N)
HUN1.FX	1	Fox	1992	Hungary	Badrane and Tordo, 2001	AF325462(G)
I15DG	1	Dog	1995	India	Nadin-Davis <i>et al.</i> , 2002	AF369309(P)
I19.DG	1	Dog	1995	India	Nadin-Davis <i>et al.</i> , 2002	AF369310(P)
PV11	1	Sheep	?	India	Unpublished	AF233275(G)
RV61	1	Human	?	India	Kuzmin <i>et al.</i> , 2004	AY352493(N) AY353894(G)
RVD	1	Dog	?	India	Unpublished	AY237121(G)
V458.DG	1	Bovine	1991	India	Nadin-Davis <i>et al.</i> , 2002	AF369330(P)
8681IRA	1	Dog	1986	Iran	Kissi <i>et al.</i> , 1995	RVU22482(N)
8702IRA	1	Wolf	1987	Iran	Kissi <i>et al.</i> , 1995	RVU22483(N)
IR14.DG	1	Human	1993	Iran	Nadin-Davis <i>et al.</i> , 2002	AF369312(P)
IR5.DG	1	Dog	1993	Iran	Nadin-Davis <i>et al.</i> , 2002	AF369311(P)
IRN1.HM	1	Human	1988	Iran	Badrane and Tordo, 2001	AF325472(G)
V660.FX	1	Fox	2000	Israel	Nadin-Davis <i>et al.</i> , 2002	AF369280(P)
V661.FX	1	Fox	?	Israel	Nadin-Davis <i>et al.</i> , 2002	AF369281(P)
V662.FX	1	Fox	?	Israel	Nadin-Davis <i>et al.</i> , 2002	AF369282(P)
V664.FX	1	Fox	?	Israel	Nadin-Davis <i>et al.</i> , 2002	AF369283(P)
IVCI-UN	1	Dog	1986	Ivory Coast	Badrane and Tordo, 2001	AF325482(G)
9003CI	1	Dog	1989	Ivory Coast	Kissi <i>et al.</i> , 1995	RVU22639(N)
9026CI	1	Dog	1990	Ivory Coast	Kissi <i>et al.</i> , 1995	RVU22646(N)
RABRCHL	1	Nishigahara derivative	1918	Japan	Ito <i>et al.</i> , 2001	AB009663(N) AB009663(P) AB009663(M) AB009663(G)
Komatsugawa	1	Dog	?	Japan	Kuzmin <i>et al.</i> , 2004	AY352494(N)
RABNishigahara	1	Laboratory strain	1915	Japan	Ito <i>et al.</i> , 2001	AB044824(N) AB044824(M) AB044824(P) AB044824(G)
341f	1	Red fox	?	Kazakhstan	Kuzmin <i>et al.</i> , 2004	AY352492(N)
408s	1	Sheep	?	Kazakhstan	Kuzmin <i>et al.</i> , 2004	AY352490(N)
409F	1	Red fox	?	Kazakhstan	Kuzmin <i>et al.</i> , 2004	AY352489(N)
RU7.FX	1	Red fox	1988	Kazakhstan	Nadin-Davis <i>et al.</i> , 2002	AF369274(P)
RV259	1	Red fox	?	Kazakhstan	Kuzmin <i>et al.</i> , 2004	AY352491(N)
94212KEN	1	Dog	1993	Kenya	Kissi <i>et al.</i> , 1995	RVU22858(N)
Aravan		<i>Myotis blythi</i>	1991	Kyrgyzstan	Kuzmin <i>et al.</i> , 2003	AY262023(N) AY262023(P) AY262023(G) AY262023(M)
MAD1.DG	1	Dog	1985	Madagascar	Badrane and Tordo, 2001	AF325478(G)
MAL1.HM	1	Human	1985	Malaysia	Badrane and Tordo, 2001	AF325487(G)
8689MAU	1	Camel	1986	Mauritania	Kissi <i>et al.</i> , 1995	RVU22489(N)
RABDgMAU	1	Camel	1986	Mauritania	Badrane and Tordo, 2001	AF325483(G)
9126MEX	1	Dog	1991	Mexico	Kissi <i>et al.</i> , 1995	RVU22477(N)
M29.DG	1	Cat	1991	Mexico	Nadin-Davis <i>et al.</i> , 2002	AF369313(P)
M4.VB	1	Bovine	1991	Mexico	Nadin-Davis <i>et al.</i> , 2002	AF369366(P)
MEX1.DG	1	Dog	1991	Mexico	Badrane and Tordo, 2001	AF325477(G)
RABDrMEX	1	<i>Desmodus rotundus</i>	1987	Mexico	Badrane and Tordo, 2001	AF325492(G)



V229.VB	1	Bovine	1994	Mexico	Nadin-Davis <i>et al.</i> , 2002	AF369362(P)
RVU43025	1	Terrestrial Mammal	?	Middle East	Bourhy <i>et al.</i> , 1999	RVU43025(N)
9107MAR	1	Dog	?	Morocco	Holmes <i>et al.</i> , 2002	AF401287(G)
MOR1.DG	1	Dog	1989	Morocco	Badrane and Tordo, 2001	AF325468(G)
MOR3.DG	1	Human	1990	Morocco	Badrane and Tordo, 2001	AF325469(G)
87012MAR	1	Dog	1986	Morocco	Kissi <i>et al.</i> , 1995	RVU22631(N)
9106MAR	1	Human	1990	Morocco	Kissi <i>et al.</i> , 1995	RVU22642(N)
MOR2.DG	1	Dog	1987	Morocco	Badrane and Tordo, 2001	AF325467(G)
8631MOZ	1	Dog	1986	Mozambique	Kissi <i>et al.</i> , 1995	RVU22484(N)
8708NAM	1	Kudu	1987	Namibia	Kissi <i>et al.</i> , 1995	RVU22632(N)
9227NAM	1	Jackal	1992	Namibia	Kissi <i>et al.</i> , 1995	RVU22649(N)
V243.CD	1	Kudu	1980	Namibia	Nadin-Davis <i>et al.</i> , 2002	AF369324(P)
NEP1.DG	1	Dog	1989	Nepal	Badrane and Tordo, 2001	AF325489(G)
V121.DG	1	Dog	1989	Nepal	Nadin-Davis <i>et al.</i> , 2002	AF369317(P)
V123.DG	1	Dog	1989	Nepal	Nadin-Davis <i>et al.</i> , 2002	AF369318(P)
V124.DG	1	Dog	1989	Nepal	Nadin-Davis <i>et al.</i> , 2002	AF369319(P)
02017HOL	5	<i>Eptesicus serotinus</i>	2000	Netherlands	Davis <i>et al.</i> , 2005	AY863364(N)
02018HOL	5	<i>Eptesicus serotinus</i>	2000	Netherlands	Davis <i>et al.</i> , 2005	AY863365(N)
02019HOL	5	<i>Eptesicus serotinus</i>	1999	Netherlands	Davis <i>et al.</i> , 2005	AY863388(N) AY863324(G)
02020HOL	5	<i>Eptesicus serotinus</i>	1999	Netherlands	Davis <i>et al.</i> , 2005	AY863366(N)
02021HOL	5	<i>Eptesicus serotinus</i>	1998	Netherlands	Davis <i>et al.</i> , 2005	AY863367(N)
02022HOL	5	<i>Eptesicus serotinus</i>	1998	Netherlands	Davis <i>et al.</i> , 2005	AY863368(N)
02024HOL	5	<i>Eptesicus serotinus</i>	1997	Netherlands	Davis <i>et al.</i> , 2005	AY863389(N) AY863338(G)
9018HOL	6	<i>Myotis dasycneme</i>	1987	Netherlands	Davis <i>et al.</i> , 2005	AY863403(N) AY863347(G)
9366HOL	5	<i>Eptesicus serotinus</i>	1992	Netherlands	Davis <i>et al.</i> , 2005	AY863359(N) AY863305(G)
9367HOL	5	<i>Eptesicus serotinus</i>	1992	Netherlands	Davis <i>et al.</i> , 2005	AY863383(N) AY863335(G)
9371HOL	5	<i>Eptesicus serotinus</i>	1992	Netherlands	Davis <i>et al.</i> , 2005	AY863360(N) AY863306(G)
9375HOL	6	<i>Myotis dasycneme</i>	1993	Netherlands	Davis <i>et al.</i> , 2005	AY863404(N) AY863344(G)
9376HOL	5	<i>Eptesicus serotinus</i>	1993	Netherlands	Davis <i>et al.</i> , 2005	AY863384(N) AY863339(G)
9377HOL	5	<i>Eptesicus serotinus</i>	1993	Netherlands	Davis <i>et al.</i> , 2005	AY863385(N) AY863334(G)
94112HOL	6	<i>Myotis dasycneme</i>	1989	Netherlands	Davis <i>et al.</i> , 2005	AY863405(N) AY863346(G)
94113HOL	5	<i>Eptesicus serotinus</i>	1992	Netherlands	Davis <i>et al.</i> , 2005	AY863386(N) AY863336(G)
94115HOL	5	<i>Eptesicus serotinus</i>	1992	Netherlands	Davis <i>et al.</i> , 2005	AY863387(N) AY863327(G)
94116HOL	5	<i>Eptesicus serotinus</i>	1989	Netherlands	Davis <i>et al.</i> , 2005	AY863363(N) AY863309(G)
9478HOL	5	<i>Eptesicus serotinus</i>	1989	Netherlands	Davis <i>et al.</i> , 2005	AY863361(N) AY863307(G)
9480HOL	5	<i>Eptesicus serotinus</i>	1987	Netherlands	Davis <i>et al.</i> , 2005	AY863362(N) AY863308(G)
9012NIG	1	Dog	1990	Niger	Kissi <i>et al.</i> , 1995	RVU22640(N)
8670NGA	1	Human	1983	Nigeria	Kissi <i>et al.</i> , 1995	RVU22488(N)
V020	3	<i>Crocidura sp</i>	1988	Nigeria	Nadin-Davis <i>et al.</i> , 2002	AF049116(P)
V461.DG	1	Dog	1996	Nigeria	Nadin-Davis <i>et al.</i> , 2002	AF369326(P)
V463.DG	1	Dog	1996	Nigeria	Nadin-Davis <i>et al.</i> , 2002	AF369327(P)
V464.DG	1	Dog	1996	Nigeria	Nadin-Davis <i>et al.</i> , 2002	AF369328(P)
V466.DG	1	Dog	1996	Nigeria	Kissi <i>et al.</i> , 1995; Nadin-Davis <i>et al.</i> , 2002	AF369329(P) RVU22842(N)
LBVNIG1956	2	<i>Eidolon helvum</i>	1956	Nigeria	This study	EF547459(N) EF547407(P) EF547444(M) EF547431(G)
196p	1	Cow	?	Pakistan	Kuzmin <i>et al.</i> , 2004	AY352495(N)
277p	1	Dog	?	Pakistan	Kuzmin <i>et al.</i> , 2004	AY352496(N)
P1.DG	1	Dog	1994	Paraguay	Nadin-Davis <i>et al.</i> , 2002	AF369315(P)
P10.VB	1	Bovine	1994	Paraguay	Nadin-Davis <i>et al.</i> , 2002	AF369363(P)
P4.VB	1	Bovine	1994	Paraguay	Nadin-Davis <i>et al.</i> , 2002	AF369364(P)
Pehm3230	1	Human	?	Peru	Warner <i>et al.</i> , 2003	AF045166(N)
V001.DG	1	Dog	1985	Peru	Nadin-Davis <i>et al.</i> , 2002	AF369323(P)
8615POL	5	<i>Eptesicus serotinus</i>	1985	Poland	Davis <i>et al.</i> , 2005	AY863369(N) AY863310(G)
9394POL	5	<i>Eptesicus serotinus</i>	1990	Poland	Davis <i>et al.</i> , 2005	AY863370(N) AY863311(G)
96031POL	5	<i>Eptesicus serotinus</i>	1994	Poland	Davis <i>et al.</i> , 2005	AY863312(G)
EBL1EsPOL	5	<i>Eptesicus serotinus</i>	1989	Poland	Badrane <i>et al.</i> , 2001a	AF298142(G)
POL2.HM	1	Human	1985	Poland	Badrane and Tordo, 2001	AF325465(G)
9002.Mg	1	Mongoose	1990	Puerto Rico	Nadin-Davis <i>et al.</i> , 2002	AF369303(P)
1305f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352461(N)
2070f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352484(N)



2072f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352485(N)
248c	1	Fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352460(N)
304c	1	Fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352459(N)
3454cow	1	Cow	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352471(N)
3502f	1	Red Fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352455(N)
3510w	1	Wolf	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352486(N)
3561D	1	Dog	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352481(N)
3605f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352467(N)
3665f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352466(N)
3678c	1	Fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352468(N)
3683c	1	Fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352469(N)
3687f	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352470(N)
483a	1	Artic fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352487(N)
686cow	1	Cow	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352482(N)
743A	1	Artic fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352488(N)
765w	1	Wolf	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352483(N)
857r	1	Raccoon dog	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352458(N)
9141RUS	1	Artic fox	1988	Russia	Kissi <i>et al.</i> , 1995	RVU22656(N)
9397RUS	5	Human	1985	Russia	Davis <i>et al.</i> , 2005	AY863371(N) AY863313(G)
999c	1	Cat	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352473(N) AY353875(G)
Irkut		<i>Murina leucogaster</i>	2002	Russia	Kuzmin <i>et al.</i> , 2005	AY333112(N) AY333112(P) AY333112(G) AY333112(M)
RF262	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352457(N)
RU9.RD	1	Raccoon dog	1988	Russia	Nadin-Davis <i>et al.</i> , 2002	AF369284(P)
RV1589	1	Cat	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352456(N)
RV1590	1	Human	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352472(N)
RV1596	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352474(N)
RV234	1	Dog	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352476(N)
RV241	1	Human	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352477(N)
RV245	1	Human	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352474(N)
RV250	1	Rodent	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352480(N)
RV257	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352464(N)
RV260	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352465(N)
RV298	1	Cow	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352478(N)
RV299	1	Red fox	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352479(N)
RV303	1	Raccoon dog	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352505(N)
RVHK	1	Human	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352462(N)
RVHN	1	Human	?	Russia	Kuzmin <i>et al.</i> , 2004	AY352463(N)
West Caucasian bat virus		<i>Miniopterus schreibersi</i>	2002	Russia	Kuzmin <i>et al.</i> , 2005	AY333113(N) AY333113(P) AY333113(G) AY333113(M)
8706ARS	1	Red fox	1987	Saudi Arabia	Kissi <i>et al.</i> , 1995	RVU22481(N)
9303SEN	1	Dog	1991	Senegal	Kissi <i>et al.</i> , 1995	RVU22915(N)
LBVSEN1985	2	<i>Eidolon helvum</i>	1985	Senegal	This study	EF547448(N) EF547419(P) EF547446(M) EF547431(G)
01018SLO	5	<i>Eptesicus serotinus</i>	2001	Slovakia	Davis <i>et al.</i> , 2005	AY863382(N) AY863323(G)
9302SOM	1	Dog	1993	Somaliland	Kissi <i>et al.</i> , 1995	RVU22914(N)
M710/90	1	Yellow mongoose	1990	South Africa	Jacobs unpublished	AF467949(N) AF467950(P)
1500AFS	1	Yellow mongoose	1987	South Africa	Kissi <i>et al.</i> , 1995	RVU22628(N)
86132SA	4	Human	1970	South Africa	Davis <i>et al.</i> , 2005; Nadin-Davis <i>et al.</i> , 2002	AY996323(N) AY996321(G) AF049115(P)
8721AFS	1	Human	1981	South Africa	Kissi <i>et al.</i> , 1995	RVU22633(N)
94286SA	4	<i>Miniopterus schreibersii</i>	1981	South Africa	Davis <i>et al.</i> , 2005; Nadin-Davis <i>et al.</i> , 2002	AY996324(N) AY996322(G) AF049120(P)
SAF1.MG	1	Mongoose	1987	South Africa	Badrane and Tordo, 2001	AF325485(G)
V241	3	Cat	1970	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF049118(P)
V242.DG	1	Dog	1980	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369307(P)
V250.CD	1	Canid	1994	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369297(P)
V252.CD	1	Dog	1994	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369299(P)
V547	3	Cat	1995	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369374(P)
V550	3	Cat	1997	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369375(P)
V552	3	Cat	1997	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369376(P)
V635	3	Cat	1998	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369378(P)
V050.Mg	1	Yellow mongoose	1990	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369298(P)
V064Mg	1	Yellow mongoose	1990	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369301(P)
V264.Mg	1	Mongoose	1995	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369302(P)
V619	1	Bovine	2000	South Africa	Nadin-Davis <i>et al.</i> , 2002	AF369306(P)
LBVSA1981 (640)	2	<i>Epomophorus wahlbergii</i>	1980	South Africa	This study	EF547457(N) EF547408(P)



			1981			EF547436(M) EF547427(G)
LBVSA1981 (1248)	2	<i>Epomophorus wahlbergii</i>	1980 - 1981	South Africa	This study	EF547456(N) EF547412(P) EF547437(M) EF547426(G)
LBVSA1981 (679)	2	<i>Epomophorus wahlbergii</i>	1980 - 1981	South Africa	This study	EF547454(N) EF547411(P) EF547441(M) EF547424(G)
LBVSA1982	2	<i>Epomophorus wahlbergii</i>	1982	South Africa	This study	EF547455(N) EF547410(P) EF547439(M) EF547425(G)
LagSA2003	2	<i>Epomophorus wahlbergii</i>	2003	South Africa	This study	EF547451(N) EF547413(P) EF547434(M) EF547421(G)
LagSA2004	2	<i>Epomophorus wahlbergii</i>	2004	South Africa	This study	EF547458(N) EF547415(P) EF547440(M) EF547428(G)
Mongoose2004	2	Mongoose	2004	South Africa	This study	EF547453(N) EF547409(P) EF547438(M) EF547432(G)
LBVSA2006	2	<i>Epomophorus wahlbergii</i>	2006	South Africa	This study	EF547452(N) EF547414(P) EF547435(M) EF547422(G)
SKRBV9801YC	1	Cattle	1998	South Korea	Hyun <i>et al.</i> , 2005	DQ076119(N) DQ076105(G)
SKRRD9901PJ	1	Raccoon dog	1999	South Korea	Hyun <i>et al.</i> , 2005	DQ076123(N) DQ076103(G)
SKRRD9902PJ	1	Raccoon dog	1999	South Korea	Hyun <i>et al.</i> , 2005	DQ076121(N) DQ076102(G)
SKRRD9903YG	1	Raccoon dog	1999	South Korea	Hyun <i>et al.</i> , 2005	DQ076131(N) DQ076099(G)
SKRDG9901GY	1	Dog	1999	South Korea	Hyun <i>et al.</i> , 2005	DQ076100(N) DQ076100(G)
SKRDG9902GY	1	Dog	1999	South Korea	Hyun <i>et al.</i> , 2005	DQ076120(N) DQ076101(G)
SKRRD0204C	1	Raccoon dog	2002	South Korea	Hyun <i>et al.</i> , 2005	DQ076125(N) DQ076094(G)
SKRDD0205HC	1	Raccoon dog	2002	South Korea	Hyun <i>et al.</i> , 2005	DQ076127(N) DQ076096(G)
SKRDG0203CW	1	Dog	2002	South Korea	Hyun <i>et al.</i> , 2005	DQ076124(N) DQ076104(G)
SKRDG0204HC	1	Dog	2002	South Korea	Hyun <i>et al.</i> , 2005	DQ076128(N) DQ076093(G)
SKRRD0406CC	1	Raccoon dog	2004	South Korea	Hyun <i>et al.</i> , 2005	DQ076126(N) DQ076098(G)
SKRBV0403CW	1	Cattle	2004	South Korea	Hyun <i>et al.</i> , 2005	DQ076129(N) DQ076095(G)
SKRBV0404HC	1	Cattle	2004	South Korea	Hyun <i>et al.</i> , 2005	DQ076130(N) DQ076097(G)
94285SPA	5	<i>Eptesicus serotinus</i>	1994	Spain	Davis <i>et al.</i> , 2005	AY863391(N) AY863337(G) AY863226(G-L)
9483SPA	5	<i>Eptesicus serotinus</i>	1987	Spain	Davis <i>et al.</i> , 2005	AY863390(N) AY863340(G) AY863252(G-L)
5657	1	Bovine	2001	Sri Lanka	Nanayakkara <i>et al.</i> , 2003	AY138550(N)
SRL1032	1	Jackal	1996	Sri Lanka	Arai <i>et al.</i> , 2001	AB041964(N)
SRL1145	1	Water buffalo	1996	Sri Lanka	Arai <i>et al.</i> , 2001	AB041969(N)
V113.DG	1	Dog	1986	Sri Lanka	Nadin-Davis <i>et al.</i> , 2002	AF369320(P)
V118.DG	1	Dog	1986	Sri Lanka	Nadin-Davis <i>et al.</i> , 2002	AF369321(P)
91350OMA	1	Red fox	1990	Sultanate of Oman	Kissi <i>et al.</i> , 1995	RVU22480(N)
02053SWI	6	?	2002	Switzerland	Davis <i>et al.</i> , 2005	AY863408(N)
9337SWI	6	<i>Myotis dasycneme</i>	1993	Switzerland	Davis <i>et al.</i> , 2005	AY863407(N) AY863343(G)
V034.RFX	1	Red fox	1987	Switzerland	Nadin-Davis <i>et al.</i> , 2002	AF369272(P)
V286	6	<i>Myotis daubentonii</i>	1992	Switzerland	Nadin-Davis <i>et al.</i> , 2002	AF049121(P)
Khujand		<i>Myotis daubentonii</i>	2001	Tajikistan	Kuzmin <i>et al.</i> , 2003	AY262024(N) AY262024(P) AY262024(G) AY262024(M)
9221TAN	1	Dog	1992	Tanzania	Kissi <i>et al.</i> , 1995	RVU22645(N)
9222TAN	1	Cow	1992	Tanzania	Kissi <i>et al.</i> , 1995	RVU22647(N)
9224TAN	1	Wild dog	1992	Tanzania	Kissi <i>et al.</i> , 1995	RVU22648(N)
V040.CD	1	Canid	1992	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369275(P)
V265.BFX	1	Bat-eared fox	?	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369296(P)



V266.CD	1	Canid	?	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369276(P)
V271.BFX	1	Bat-eared fox	?	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369277(P)
V668	1	Bovine	?	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369332(P)
V670.DG	1	Dog	?	Tanzania	Nadin-Davis <i>et al.</i> , 2002	AF369333(P)
9218BTCH	1	Dog	1992	Tchad	Kissi <i>et al.</i> , 1995	RVU22644(N)
8743THA	1	Dog	?	Thailand	Holmes <i>et al.</i> , 2002	AF401285(G)
8738THA	1	Human	1983	Thailand	Kissi <i>et al.</i> , 1995	RVU22653(N)
HM208	1	Human	?	Thailand	Hemachudha <i>et al.</i> , 2003	AY257983(G)
HM88	1	Human	?	Thailand	Hemachudha <i>et al.</i> , 2003	AY257982(G)
RABDgTHA	1	Human	1983	Thailand	Badrane and Tordo, 2001	AF325488(G)
8743THA	1	Human	?	Thailand	Kissi <i>et al.</i> , 2004	AY540348(M)
V324.VB	1	Bovine	1995	Trinidad	Nadin-Davis <i>et al.</i> , 2002	AF369367(P)
V325.VB	1	Bovine	1995	Trinidad	Nadin-Davis <i>et al.</i> , 2002	AF369368(P)
DR.Td2	1	<i>Desmodus rotundus</i>	1995	Trinidad and Tobago	Nadin-Davis <i>et al.</i> , 2001	AF351852(N)
TUN1.HM	1	Human	1986	Tunisia	Badrane and Tordo, 2001	AF325466(G)
V027.DG	1	Dog	1988	Tunisia	Nadin-Davis <i>et al.</i> , 2002	AF369322(P)
RV1333	6	<i>Homo sapiens</i>	2002	United Kingdom	Marston <i>et al.</i> 2007	EF157977(N) EF157977(P) EF157977(M) EF157977(G)
9443UKR	5	<i>Vespertilio murinus</i>	1987	Ukraine	Davis <i>et al.</i> , 2005	AY863372(N) AY863314(G)
1261	1	<i>Myotis evotis</i>	1990	USA	Messenger <i>et al.</i> , 2003	AF394874(N)
1265	1	<i>Antrozous pallidus</i>	1991	USA	Messenger <i>et al.</i> , 2003	AF394868(N)
132	1	<i>Eptesicus fuscus</i>	1984	USA	Messenger <i>et al.</i> , 2003	AY039229(N)
136	1	<i>Eptesicus fuscus</i>	1984	USA	Messenger <i>et al.</i> , 2003	AY039226(N)
1420	1	Red fox	?	USA	Kuzmin <i>et al.</i> , 2004	AY352499(N)
1421	1	Red fox	?	USA	Kuzmin <i>et al.</i> , 2004	AY352500(N)
1422	1	Arctic fox	?	USA	Kuzmin <i>et al.</i> , 2004	AY352501(N)
1428	1	<i>Lasiurus borealis</i>	1991	USA	Messenger <i>et al.</i> , 2003	AY039224(N)
1435	1	<i>Pipistrellus subflavus</i>	1991	USA	Messenger <i>et al.</i> , 2003	AF394881(N)
1563	1	<i>Myotis californicus</i>	1986	USA	Messenger <i>et al.</i> , 2003	AF394873(N)
1566	1	<i>Myotis californicus</i>	1987	USA	Messenger <i>et al.</i> , 2003	AF394871(N)
2049	1	<i>Eptesicus fuscus</i>	1985	USA	Messenger <i>et al.</i> , 2003	AY039228(N)
2054	1	<i>Eptesicus fuscus</i>	?	USA	Messenger <i>et al.</i> , 2003	AF394888(N)
2085	1	<i>Lasiurus borealis</i>	1986	USA	Messenger <i>et al.</i> , 2003	AF394886(N)
2152	1	<i>Lasionycteris noctivagans</i>	1984	USA	Messenger <i>et al.</i> , 2003	AF394880(N)
2247	1	Human	1994	USA	Messenger <i>et al.</i> , 2003	AF394879(N)
2253	1	<i>Antrozous pallidus</i>	1993	USA	Messenger <i>et al.</i> , 2003	AF394869(N)
2847	1	<i>Myotis californicus</i>	1995	USA	Messenger <i>et al.</i> , 2003	AF394872(N)
3044	1	<i>Pipistrellus Hesperus</i>	1993	USA	Messenger <i>et al.</i> , 2003	AF394870(N)
3285	1	<i>Lasiurus ega</i>	1996	USA	Messenger <i>et al.</i> , 2003	AY170401(N)
3850	1	<i>Myotis velifer</i>	1996	USA	Messenger <i>et al.</i> , 2003	AY170414(N)
3855	1	<i>Myotis velifer</i>	?	USA	Messenger <i>et al.</i> , 2003	AY170405(N)
446	1	<i>Lasiurus cinereus</i>	1982	USA	Messenger <i>et al.</i> , 2003	AF394884(N)
4795	1	Dog	?	USA	Kuzmin <i>et al.</i> , 2004	AY352498(N)
4850	1	<i>Eptesicus fuscus</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170399(N)
4862	1	<i>Eptesicus fuscus</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170397(N)
4867	1	<i>Eptesicus fuscus</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170398(N)
4871	1	<i>Eptesicus fuscus</i>	?	USA	Messenger <i>et al.</i> , 2003	AY170404(N)
4872	1	<i>Myotis</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170416(N)
4873	1	<i>Myotis</i>	1996	USA	Messenger <i>et al.</i> , 2003	AY170415(N)
4886	1	<i>Eptesicus fuscus</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170400(N)
4891	1	<i>Eptesicus fuscus</i>	1999	USA	Messenger <i>et al.</i> , 2003	AY170417(N)
5440	1	Skunk	2001	USA	Messenger <i>et al.</i> , 2003	AY170409(N)
5441	1	Skunk	2001	USA	Messenger <i>et al.</i> , 2003	AY170410(N)
5442	1	<i>Eptesicus fuscus</i>	2001	USA	Messenger <i>et al.</i> , 2003	AY170412(N)
5450	1	<i>Eptesicus fuscus</i>	2001	USA	Messenger <i>et al.</i> , 2003	AY170413(N)
5451	1	Skunk	2001	USA	Messenger <i>et al.</i> , 2003	AY170411(N) AY170396(M)
804	1	<i>Eptesicus fuscus</i>	1987	USA	Messenger <i>et al.</i> , 2003	AF394887(N)
814	1	<i>Lasiurus cinereus</i>	1986	USA	Messenger <i>et al.</i> , 2003	AF394883(N)
872	1	<i>Lasiurus intermedius</i>	1988	USA	Messenger <i>et al.</i> , 2003	AF394878(N)
874	1	<i>Tadarida brasiliensis</i>	1988	USA	Messenger <i>et al.</i> , 2003	AF394876(N)
885	1	<i>Lasiurus borealis</i>	1988	USA	Messenger <i>et al.</i> , 2003	AF394885(N)
905	1	<i>Plecotus townsendii</i>	1989	USA	Messenger <i>et al.</i> , 2003	AF394877(N)
906	1	<i>Eptesicus fuscus</i>	1987	USA	Messenger <i>et al.</i> , 2003	AY039227(N)
976	1	<i>Myotis austroriparius</i>	1988	USA	Messenger <i>et al.</i> , 2003	AY039225(N)
EF71	1	<i>Eptesicus fuscus</i>	1998	USA	Nadin-Davis <i>et al.</i> , 2001	AF351860(N)
EF72	1	<i>Eptesicus fuscus</i>	1998	USA	Nadin-Davis <i>et al.</i> , 2001	AF351854(N)
FLRAC	1	Raccoon	1987	USA	Nadin-Davis <i>et al.</i> , 2002	AF369294(P)
FT2891.DG	1	Coyote	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369308(P)
KY2877.SK	1	Dog	1995	USA	Nadin-Davis <i>et al.</i> , 2002	AF369292(P)
L1	1	<i>Lasiurus intermedius</i>	1987	USA	Nadin-Davis <i>et al.</i> , 2001	AF351843(N)
LB7	1	<i>Lasiurus borealis</i>	1998	USA	Nadin-Davis <i>et al.</i> , 2001	AF351857(N)
NY516	1	Raccoon	?	USA	Nadin-Davis <i>et al.</i> , 1996	RVU27214(G) AF360857(M)
NYRAC	1	Raccoon	1992	USA	Nadin-Davis <i>et al.</i> , 2002	AF369293(P)
PAR89	1	Raccoon	1989	USA	Nadin-Davis <i>et al.</i> , 1996	RVU27221(G)



						RVU27221(N)
RABCUSA	1	Coyote	1993	USA	Morimoto <i>et al.</i> , 1996	RVU52947(G)
RABHepflury	1	Human	1939	USA	Morimoto <i>et al.</i> , 1989	AB085828(N) AB085828(P) AB085828(M) AB085828(G)
RABLnUSA	1	Human	1994	USA	Morimoto <i>et al.</i> , 1996	RVU52946(G)
RABLsUSA	1	<i>Myotis sp</i>	1979	USA	Badrane and Tordo, 2001	AF298141(G)
RABMyUSA1	1	<i>Myotis sp</i>	1981	USA	Badrane and Tordo, 2001	AF325494(G)
RABMyUSA2	1	<i>Myotis sp</i>	1982	USA	Badrane and Tordo, 2001	AF325495(G)
RABSADB19	1	Dog	1935	USA	Conzelmann <i>et al.</i> , 1990	RAVCGA(N) RAVCGA(P) RAVCGA(M) RAVCGA(G)
RABSkUSA1	1	Skunk	1981	USA	Badrane and Tordo, 2001	AF325473(G)
RABSkUSA2	1	Sheep	1981	USA	Badrane and Tordo, 2001	AF325475(G)
SHBRV-18	1	<i>Lasionycteris noctivagans</i>	?	USA	Faber <i>et al.</i> , 2004	AY705373(N) AY705373(P) AY705373(M) AY705373(G)
TB1	1	<i>Tadarida brasiliensis</i>	?	USA	Nadin-Davis <i>et al.</i> , 2001	AF351849(N)
USA1.DG	1	Dog	1981	USA	Badrane and Tordo, 2001	AF325476(G)
USA2.SP	1	Sheep	1981	USA	Badrane and Tordo, 2001	AF325474(G)
V211.SK	1	Skunk	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369287(P)
V212.SK	1	Skunk	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369288(P)
V213.SK	1	Skunk	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369289(P)
V217.CO	1	Coyote	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369337(P)
V224.GFX	1	Bovine	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369271(P)
V230.BBB	1	<i>Eptesicus fuscus</i>	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369342(P)
V231.RB	1	<i>Lasiurus borealis</i>	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369348(P)
V235.FTB	1	<i>Tadarida brasiliensis</i>	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369359(P)
CVS	1	Vaccine strain	1882	USA	Tordo <i>et al.</i> , 1986	NC_001542(N) NC_001542(P) NC_001542(M) NC_001542(G)
V215.SK	1	Skunk	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369290(P)
V216.SK	1	Skunk	1994	USA	Nadin-Davis <i>et al.</i> , 2002	AF369291(P)
VSV				USA		NC_001560(N) NC_001560(P) NC_001560(M) NC_001560(G)
86106YOU	1	Red fox	1972	Yugoslavia	Kissi <i>et al.</i> , 1995	RVU22839(N)
86107YOU	1	Red fox	1976	Yugoslavia	Bourhy <i>et al.</i> , 1999	RVU42703(N)
86111YOU	1	Red fox	?	Yugoslavia	Bourhy <i>et al.</i> , 1999	RVU42706(N)
8653YOU	1	Wolf	1982	Yugoslavia	Bourhy <i>et al.</i> , 1999	RVU42704(N)
8658YOU	1	Cattle	1981	Yugoslavia	Bourhy <i>et al.</i> , 1999	RVU42705(N)
YUG1.WF	1	Wolf	1984	Yugoslavia	Badrane and Tordo, 2001	AF325463(G)
8915ZAI	1	Dog	1989	Zaire	Kissi <i>et al.</i> , 1995	RVU22638(N)
MOKZIM	3	Cat	1982	Zimbabwe	Le Mercier <i>et al.</i> , 1997	Y09762(G) Y09762(N) Y09762(P) Y09762(M)
V284.DG	1	Dog	?	Zimbabwe	Nadin-Davis <i>et al.</i> , 2002	AF369325(P)
V628	3	Cat	1993	Zimbabwe	Nadin-Davis <i>et al.</i> , 2002	AF369377(P) AY540347(M)
LBVZIM1986	2	Cat	1986	Zimbabwe	This study	EF547450(N) EF547416(P) EF547442(M) EF547429(G)

APPENDIX 2

Table 1: Identity of the N gene (A) and N protein (B) sequences of lyssavirus genotypes and putative genotypes

A

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1956	LBVSEN1985	LBVAFR1999
Gt 1	82.5-9.9	69.4-73.9	73.7-7.5	74.6-75.6	73.8-7.6	75.8-78.9	74.4-77.4	73.8-74.4	75.2-6.9	71.8-74.1	72.1-73.5	72.2-73.3	72.7-73.5	72.3-73.7	72.4-73.8	72.5-74.3	73.7-74.6	73.2-74.6	72.9-74.5	73.7-74.3	73.2-74.6	72.9-74.5	
Gt 3	88.5	72.1-73.5	72.7-3	70.7-72.6	72.7-3.2	75.2-74.3	75.2-74.3	70.5-71.1	72.9-73.7	77.3-78.4	76.9-78.5	77-78.5	76.7-78.3	77-78.7	77-78.6	76.3-78.4	77-78.4	76.4-77.3	75-76.9	75.9-77.3	76-77.3	75.9-77.3	76-77.3
Gt 4	99	78.-80	75.7-76.2	76-77.7	77-78.2	77-78.8	75.8-76.1	73.5-73.9	74.9	75	75.1	74.9	74.9-75	75	75.1	75	75.2	74.7	73.3	73.3	73.3	73.3	73.5
Gt 5	95.1-100	76.1-78	76.6-77.7	76.6-77.4	78.4-79.1	77.2-77.6	73.5-74.5	73.4-74.5	73.6-74.6	73.6-74.6	73.2-74.2	73.3-74.6	73.3-74.6	73.3-74.6	73.3-74.6	73.4-74.2	73.4-74.2	73.4-74.2	72.6-73.3	72.4-73.5	72.4-73.5	72.4-73.5	72.4-73.5
Gt 6	95.6-99.6	74.9-77.2	76.7-77.2	76.7-77.5	76.7-77.5	79.1-79.5	72.3-73.3	72-72.8	71.8-72.9	71.8-72.9	71.9-72.9	71.9-72.9	71.9-72.9	71.9-72.9	71.9-72.9	72.7-73.1	72.7-73.2	72.7-73.2	72.7-73.2	72.7-73.2	72.7-73.2	72.7-73.2	72.7-73.2
Gt 7	83.7-100	76.5-77.1	75.2-76.2	75.8-76.5	75.8-76.5	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	73.8-73.2	
Irkut																							
Aravan																							
Khujand																							
WCBV																							
LBVSA1982																							
LBVSA1980(640)																							
LBVSA1980(1248)																							
LBVSA1980(679)																							
LagSA2003																							
LagSA2004																							
Mongoose 2004																							
LBVSA2006																							
LBVZIM1986																							
LBVCAR1974																							
LBVNIG1956																							
LBVSEN1985																							
LBVAFR1999																							

B

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1956	LBVSEN1985	LBVAFR1999
Gt 1	92.4-100	80.3-82.9	86.9-88.9	86.9-88.9	86.2-88.4	88.7-93.6	86-87.3	88.2-90.2	89.1-90.9	80.7-81.6	83.1-85.3	83.3-85.8	83.3-85.6	83.3-85.6	82.7-85.1	83.5-86	83.3-85.7	83.1-85.6	83.6-85.6	84.4-85.8	81.8-83.1	83.8-85.8	83.8-85.8
Gt 3	94-98.4	80.4-84.9	82.7-83.3	78.8-80.4	82.2-84	84.2-84.7	84.4-85.1	81.3-82.2	81.8-82.4	89.8	90.2	89	89.3	90.7	88.3	90.7	90	88.3	90.7	90.4	88.9	90.9	90.9
Gt 4	99.2	92.4-93.3	85.6-86.7	88.7-90.4	90.4-90.6	91.8-91.6	89.3-89.1	84.4-84.7	86.9-87.1	87.3-87.1	87.3-87.1	87.3-87.1	87.3-87.1	87.3-87.1	86.2-86.4	87.8-87.6	86.3-87.1	86.7-86.9	87.8-88	86.6-85.8	86.7-86.9	86.7-86.9	86.7-86.9
Gt 5	98.4-100	88.7-88.2	88-89.4	91.8-92.7	91.6-92	89.1-90.2	81.8-82.4	85.6-85.8	85.8-86	85.8-86	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9	84.9-85.9
Gt 6	97.3-99.6	86.4-88.7	86.2-86.9	88.2-88.9	90.4-91.1	80.9-81.1	80.9-81.6	80.7-81.6	80.9-81.6	80.9-81.6	80.4-81.1	80.9-81.6	80.9-81.6	80.9-81.6	80.1-81.3	81.1-81.2	81.1-81.2	81.1-81.2	81.1-81.2	81.1-81.2	81.1-81.2	81.1-81.2	81.1-81.2
Gt 7	96.7-100	87.8-88.9	91.1-92.9	90.4-92.7	81.3-83.1	83.8-85.6	83.8-85.6	83.8-85.6	83.8-85.6	83.8-85.6	83.8-85.3	83.8-85.3	83.8-85.3	83.8-85.3	82.4-85.9	82.4-85.9	82.4-85.9	82.4-85.9	82.4-85.9	81.3-85.9	83.8-85.9	83.8-85.9	83.8-85.9
Irkut																							
Aravan																							
Khujand																							
WCBV																							
LBVSA1982																							
LBVSA1980(640)																							
LBVSA1980(1248)																							
LBVSA1980(679)																							
LagSA2003																							
LagSA2004																							
Mongoose 2004																							
LBVSA2006																							
LBVZIM1986																							
LBVCAR1974																							
LBVNIG1956																							
LBVSEN1985																							
LBVAFR1999																							

Table 2: Identity of the P gene (A) and P protein (B) sequences of lyssavirus genotypes and putative genotypes.

A

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1985	LBVSEN1985	LBVAFR1995	
Gt 1	77.7498.9	51.3-56.3	59.3-64.7	61.7-64.8	65.4-68.5	66.3-71.4	62.3-66.5	66.3-68.7	63.9-67.2	59.64	52.6-54.9	52.6-54.9	52.6-54.9	52.7-55.1	52.7-55.1	52.6-54.9	52.5-55.1	52.2-54.9	52.2-55.2	52.3-54.8	52.3-55			
Gt 3		/9.8-10.0	51.3-52.4	52.8-64.2	54.5-55.5	52.2-55.5	54.5-56.3	53.8-55.7	52.5-52.7	62.2-65.2	62.1-64.1	62.3-64.3	62.2-64.2	62.2-64.2	62.3-64.3	62.3-64.3	62.2-64.2	62.2-64.1	63.3-64.2	65.4-67.1	64.6-67.7			
Gt 4			98	69.1-69.8	64.4-68.4	61.1-63.3	67.2-67.3	64.7-66.1	65.1-56	53.5-53.3	54.1	54.1	54.2	54.2	54.1	54.1	54.1	54.2	53.9	63.7-64	65.1-65.4	65.8-68.2		
Gt 5				98.7	57.3-57.5	67.0-67.9	63.4-63.8	67.0-67.9	70.2-70.5	51.2-51.2	54.0-55.4	54.0-55.4	54.0-55.4	54.0-55.4	54.0-55.4	54.0-55.4	54.0-55.4	54.0-55.4	54.5-55.1	55.1-55.2	54.5-54.2	54.2-54.5		
Gt 6					66.5-68	66.8	74.2	72.6	64.8	53.8	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.9	53.8	53.7	53.3	63.1		
Gt 7						96	70.0-99.6	61.2-65.5	67.0-60.1	67.8-80.4	50.8-51.2	52.7-54.6	52.7-54.6	52.7-54.6	52.7-54.6	52.7-54.6	52.7-54.6	52.7-54.6	52.7-54.6	52.0-64.8	52.1-65.1	52.0-64.8	52.7-64.2	52.7-64.3
Irkut							66.8	65.8	52.7	54.8	54.8	54.9	54.9	54.9	54.9	54.9	54.8	54.8	54.7	54.6	55.8	55.7		
Aravan								74.6	54.2	53.2	53.2	53.3	53.2	53.3	53.3	53.4	53.2	53.2	52.9	53.0	53.3	55.5		
Khujand									53.1	54.1	54.1	54.1	54.1	54.2	54.2	54.1	54.2	53.9	53.4	52.7	53.5	63.5		
WCBV										53	53	53	52.9	52.9	53	53	53	52.9	51.7	52	51.3	61.3		
LBVSA1982											100	93.9	98.9	99.9	99.9	99.9	99.9	99.9	99.9	98	91.6	74.2	70.6	
LBVSA198(640)												93.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	98	91.6	74.2	70.3
LBVSA198(1248)													100	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9	99.9
LBVSA198(679)														99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
LagSA2303														99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6
LagSA2304														99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5
Mongoose 2004														99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
LBVSA2006															99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVZIM1986																99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVCAR1974																	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVNIG1956																		99.6	99.6	99.6	99.6	99.6	99.6	
LBVSEN1985																			99.6	99.6	99.6	99.6	99.6	
LBVAFR1995																				99.6	99.6	99.6	99.6	

B

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1956	LBVSEN1985	LBVAFR1995	
Gt 1	67.3-99.6	32.4-40.1	40.3-47.9	44.1-49.8	49.5-55.5	51.1-58.9	45.2-51.3	50.2-57	52.5-59.3	31.9-36.6	36.3-39.5	36.3-39.5	36.3-39.5	36.3-39.5	36.3-39.5	36.3-39.5	36.3-39.5	36.3-39.3	35.9-40.1	34.3-38.2	33.8-39.2	34.2-39.5		
Gt 3		66.7-99.2	33.8-36.1	34.6-35.7	36.6-39.7	36.1-38.7	37.3-38.8	33.6-35.5	37-40.5	32-34.7	44.4-46.2	44.4-46.2	44.4-46.2	44.4-46.2	44.4-46.2	44.4-46.2	44.4-46.2	42.9-44.6	44.4-47	42.9-46.2	47.8-50.9	47.8-50.6		
Gt 4			97.3	57.6-59.5	45.2-46	44.1-47.1	48.1-49.2	48.3-49	46.8-47.1	32.2-32.4	39.9	39.9	39.9	39.9	39.9	39.9	39.9	40.3	39.1	38.4	38.3	38.4		
Gt 5				98.9	43.6-44	44.0-50.9	56.1	56.6	57.7	32.3-32.7	39.1-39.5	39.1-39.5	39.1-39.5	39.1-39.5	39.1-39.5	39.1-39.5	39.1-39.5	35.1-39.9	35.1-39.5	37.6-38	39.4-39.8	38.5		
Gt 6					98.3	57.6-59.7	53.3	62	65	33.1	37.8	37.8	37.8	37.8	37.8	37.8	37.8	38.2	37.8	37.8	37.8	36.5		
Gt 7						73.4-98.2	51-51.3	55.1-56.8	54.7-55.9	31.9-33.0	36.6-37.4	36.6-37.4	36.6-37.4	36.6-37.4	36.6-37.4	36.6-37.4	36.6-37.4	36.6-37.4	37.6-37.4	35.5-30.9	33.2-37	36.1-38.9	35.7-36.5	
Irkut							50.2	54	32.3	33.8	33.8	33.8	33.8	33.8	33.8	33.8	34.2	33.8	33.1	37.6	36.9	36	36.4	
Aravan								65	35	37.8	37.8	37.8	37.8	37.8	37.8	37.8	36.2	38.2	38.2	38.5	38.5	36.5		
Khujand									34.8	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.5	38.9	38.9	39.7	37.6	37.3		
WCBV										38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	38.2	37.1	34.7	32.7	33.1	
LBVSA1982											100	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVSA198(640)												99.6	100	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVSA198(1248)													99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	99.6	
LBVSA198(679)														96.3	99.6	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
LagSA2303															99.6	99.6	99.3	99.3	99.3	99.3	99.3	99.3	99.3	
LagSA2304																99.6	99.6	99.3	99.3	99.3	99.3	99.3	99.3	
Mongoose 2004																	99.6	99.6	99.3	99.3	99.3	99.3	99.3	
LBVSA2006																		99.6	99.6	99.3	99.3	99.3	99.3	
LBVZIM1986																			99.6	99.6	99.3	99.3	99.3	
LBVCAR1974																				99.6	99.6	99.3	99.3	
LBVNIG1956																					88.3	85.1	93.9	
LBVSEN1985																					65.4	50.6	49.1	
LBVAFR1995																						99.6	99.6	

Table 3: Identity of the M gene (A) and M protein (B) sequences of lyssavirus genotypes and putative genotypes.

A

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1956	LBVSEN1985	LBVAFR1999			
Gt 1	77.7-100	68.5-73.2	73.9-76.4	73.7-77.5	70.9-78.3	72.1-75.1	72.9-77	74.5-77.8	67-71.4	71.6-74.9	71.6-74.9	71.6-74.9	70.8-74.9	70.8-74.7	70.9-74.9	70.8-74.7	71.3-74.9	70.4-74.5	70.1-73.7	69.3-72.9	69.5-72.6					
Gt 3		68.6	69.6	70	70.4-71.9	70.4	71.4	70.8	69.8	75.5	75.5	75.5	75.4	75.5	75.5	75.4	76.2	75.5	77.2	77.5	77.8					
Gt 4			80.1	74.7	73.6-76.2	78.2	76.8	80.8	69	73.9	73.9	73.9	73.7	73.7	73.9	73.7	73.7	73.4	73.2	71.8	72.1					
Gt 5				77.5	74.2-76.2	79.6	78.8	79	71.8	74.5	74.5	74.5	74.4	74.5	74.4	74.4	74.5	73.2	73.2	70.3	70.3					
Gt 6					75.5-79.1	76.7	78.8	80.6	69.8	73.6	73.6	73.6	73.4	73.6	73.4	73.4	73.2	72.2	71.3	70.9						
Gt 7		63.4	73.1-74.9	75.4-79.3	77.7-79.6	68-69.5	72.6-74.5	72.6-74.5	72.6-74.5	72.2-74.2	72.4-74.6	72.6-74.5	72.4-74.4	72.4-74.6	72.4-74.7	72.4-74.7	73.6-74.2	73.4-74.4	71.4-75.2	71.4-75.5						
Irkut						79.6	78.8	70	75.2	75.2	74.9	75	75.2	75	75	75.2	75.7	71.6	71.4	71.4						
Aravan						81	69.8	74.1	74.1	74.1	73.9	74.1	73.9	73.9	73.9	73.7	74.1	72.1	72.6	72.6						
Khujand							71.1	76.8	76.8	76.8	76.5	76.7	76.8	76.7	76.7	76.5	76.7	73.7	71.1	72.7						
WCBV								69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.1	69.3	69.3	69.8	70.3	71.6	71.1	71.3				
LBVSA1982									100	100	99.7	99.8	99.8	99.8	99.8	99.8	98.9	95.6	82.3	78.2	77.8					
LBVSA1980(640)										100	99.7	99.8	99.8	99.8	99.8	99.8	99.8	95.6	82.3	78.2	77.8					
LBVSA1980(1248)											99.7	99.8	99.8	99.8	99.8	99.8	99.8	98.9	95.6	82.3	78.2	77.8				
LBVSA1980(679)											99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	95.2	82.3	78.2	77.8				
LagSA2003											99.7	99.7	99.7	99.7	99.7	99.7	99.7	99.7	95.4	82.1	78	77.7				
LagSA2004												99.7	99.7	99.7	99.7	99.7	99.7	99.7	95.4	82.1	78	77.7				
Mongoose 2004												99.7	99.7	99.7	99.7	99.7	99.7	99.7	98.7	95.4	82.1	78	77.7			
LBVSA2006													99.7	99.7	99.7	99.7	99.7	99.7	99.7	96.7	95.4	82.1	78	77.7		
LBVZIM1986														99.7	99.7	99.7	99.7	99.7	99.7	99.7	95.7	82.4	78.5	78.2		
LBVCAR1974															99.7	99.7	99.7	99.7	99.7	99.7	99.7	82.3	79.3	79.3		
LBVNIG1956																99.7	99.7	99.7	99.7	99.7	99.7	99.7	81.4	81.4		
LBVSEN1985																							99.7			
LBVAFR1999																										

B

	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	LBVSA1980(640)	LBVSA1980(1248)	LBVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	LBVSA2006	LBVZIM1986	LBVCAR1974	LBVNIG1956	LBVSEN1985	LBVAFR1999									
Gt 1	88.1-100	76.2-79.7	80.2-86.6	79.7-84.7	78.7-85.1	81.7-91.1	80.7-85.1	81.7-86.6	81.2-86.6	73.4-78.2	79.2-83.7	79.2-83.7	79.2-83.7	78.2-83.2	78.2-83.7	79.2-83.7	78.2-82.7	79.2-83.7	78.2-82.7	78.2-83.2	78.2-80.2	76.2-80.7	76.2-80.7									
Gt 3		77.7		78.7	78.2	77.2-79.7	80.7	82.2	81.2	76.7	87.6	87.6	87.6	87.1	87.6	87.1	87.1	87.1	87.1	86.6	92.1	92.1										
Gt 4			92.6	86.1	81.7-85.6	82.1	88.6	91.6	77.2	81.7	81.7	81.7	81.2	81.7	81.2	81.2	81.2	81.2	81.2	79.7	79.7	79.7										
Gt 5				84.7	81.7-85.6	93.1	88.6	88.6	88.6	77.7	83.2	83.2	83.2	83.2	83.2	83.2	82.7	82.7	82.7	82.7	80.2	79.7	79.7									
Gt 6					84.2-87.6	86.1	90	90.5	77.2	82.2	82.2	82.2	81.7	82.2	81.7	81.7	82.2	82.2	82.2	82.7	80.2	80.2										
Gt 7						91.6	82.7-87.1	85.6-91.1	85.1-90.6	72.8-75.7	79.2-84.2	79.2-84.2	79.2-84.2	79.7-83.7	79.7-83.7	79.7-83.7	79.7-83.7	79.7-84.2	79.7-83.7	79.7-83.7	80.2-83.7	77.2-81.2	77.7-80.7	77.7-80.7								
Irkut							90.6	82.1	78.8	85.1	85.1	85.1	85.1	84.7	85.1	84.7	84.7	84.7	84.7	84.7	82.2	82.2										
Aravan								96.5	79.2	85.1	85.1	85.1	85.1	84.7	85.1	84.7	85.1	84.7	84.7	84.7	82.2	82.2										
Khujand									77.7	85.1	85.1	85.1	85.1	84.7	85.1	84.7	85.1	84.7	84.7	84.7	82.2	82.2										
WCBV										81.2	81.2	81.2	81.2	80.7	81.2	81.2	81.2	81.2	80.7	80.7	76.7	75.7	75.7									
LBVSA1982											100	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.1	91.6	91.6									
LBVSA1980(640)												100	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	94.1	91.6	91.6								
LBVSA1980(1248)													99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	99.5	94.1	91.6	91.6							
LBVSA1980(679)														99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6						
LagSA2003															99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6					
LagSA2004																99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6				
Mongoose 2004																	99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6			
LBVSA2006																	99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6			
LBVZIM1986																	99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6			
LBVCAR1974																	99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6			
LBVNIG1956																	99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6			
LBVSEN1985																		99	99	99	99	99	99	99	99	99	99	94.1	91.6	91.6		
LBVAFR1999																			99	98.5	93.6	93.6	93.6	93.6	93.6	93.6	93.6	93.6	94.1	91.6	91.6	

Table 4: Identity of the G gene (A) and G protein (B) sequences of lyssavirus genotypes and putative genotypes.

A

	Lineage C										Lineage B		Lineage A													
	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982	EVSA1980(640)	EVSA1980(1248)	EVSA1980(679)	LagSA2003	LagSA2004	Mongoose 2004	EVSA2006	BVZIM1986	BVCAR1974	LBVNIG1956	BVSNE1985	BVAFR1999			
Gt 1	79.3-99.8	57.8-80.4	64.2-66.7	65.2-68.4	67.8-71.2	69.2-87.3	65.8-67.1	69-70	68-69.8	54-56.4	58.2-60.1	58.4-60.5	58.2-60.4	58.1-60.3	58.1-60.2	58.6-50.3	58.2-60.2	58.2-60.3	57.8-60.2	58.2-60.4	58.6-59.5	56.4-59.5	56.4-59.5			
Gt 3	59-59.1	59.9-60.3	58.7-60.9	59-60.2	59.5	59	58.4	57.9	69.5	69.7	70.2	69.7	70.3	69.3	70.3	69.1	69.7	68.4	69.6	69.7	58.5-59.5	58.5-59.5	58.5-59.5			
Gt 4	98.1	72.2-72.9	70.9-72.6	66.9-68.7	69.2-70	70.5-71.1	69.7-70	57-57.2	57.1-58	57.9-58	57.8-57.9	57.1-57.9	57.3-58.1	57.4-59	57.7-59.2	57.6-59.1	57.6-59.3	59.2-60	58.8-60.4	58.5-59.5	58.5-59.5	58.5-59.5	58.5-59.5			
Gt 5	94.3-99.9	72.3-72.9	69.3-69.6	36.9-69.8	1-70.5	71.5-71.9	73-73.5	55.5-56	59.6-60.7	59.9-60.5	59.9-60.4	60.4-60.4	59.9-60.4	59.9-60.4	60.4-60.4	59.8-60.2	59.9-60.4	60.8-61.2	58.7-59.2	60.6-61.8	60.6-61.8	60.6-61.8	60.6-61.8			
Gt 6	94.1-99.8	71.1-73.2	75.4-76.2	78-78.7	74.9-75.8	55.9-57.5	60.4-61.1	60.4-61.1	60.5-61.1	60.5-61.1	60.3-60.9	60.5-61.1	60.5-61.1	60.5-61.1	60.5-61.2	60.7-61.3	60.2-60.7	60.2-60.7	60.2-60.7	56.5-57.8	56.5-57.8	56.5-57.8				
Gt 7	82.4-99.3	65.8-84.8	97.2-67.5	71.0-47.1	5.5-56.1	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.5-58.9	57.6-59.1	57.6-59.3	59.2-60.5	58.5-59.5	58.5-59.5	58.5-59.5				
Irkut					70	70.2	56.2	60.1	60.1	60.6	60.7	60.7	60.8	60.8	60.7	60.6	60.6	61.4	60.4	50.3	50.2					
Aravan						74.5	50.1	59	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.1	59.3	59.3	59.6	60.3	58.6	58.6				
Khujand							56.4	60	61.2	61.1	61.1	61.2	61.1	61.1	60	61.2	61.1	61.6	61.2	58.3	58.3					
WCBV								57.6	57.6	57.5	57.5	57.5	57.5	58.1	57.5	57.5	57.5	57.4	57.3	57	55.8	55.6				
LBVSA1982									99.6	99.6	99.3	99.6	99.2	99.6	99.6	99.6	99	93.2	76.9	72.6	72.4	72.2				
LBVSA1980(640)										99.7	99.5	99.4	99.2	99.3	99.4	99.5	98.7	93.3	77	72.6	72.1					
LBVSA1980(1248)											99.1	99.4	99.2	99.3	99.4	99.5	98.7	93.3	77	72.4	72.5					
LBVSA1980(679)												99.4	98.1	99.3	99.4	99.5	98.8	93.1	76.9	72.5	72.5					
LagSA2003													98.9	99.8	99.9	98.9	98.9	92.2	77.7	72.3	72.4					
LagSA2004														98.9	98.9	98.3	93.1	77.1	72.5	72.6						
Mongoose 2004															98.9	98.9	98.9	93.1	77.8	72.4	72.5					
LBVSA2006																98.9	93.2	77.7	72.3	72.4	72.2					
BVZIM1986																	93.2	77.7	72.3	72.7	73					
BVCAR1974																		93.2	77.1	72.7	73					
LBVNIG1956																			76.4	73	73.4					
BVSNE1985																				73.2	73.4					
BVAFR1999																					99.2					

B

	Lineage C							Lineage B							Lineage A						
	Gt 1	Gt 3	Gt 4	Gt 5	Gt 6	Gt 7	Irkut	Aravan	Khujand	WCBV	LBVSA1982LBVSA1980(64Q)BVS	LBVSA1980(1248)BVS	LBVSA1980(679)Lag	LagSA2003	LagSA2004	Mongoose	2004LBVSA2006	LBVZIM1986LBVCAR1974BV	BVNIG1956LBVSEN1985LBVAFR199		
Gt 1	83.4-99.8	57.2-59.3	67.8-71.1	68.8-73.4	73-76.3	73-79	67.1-70.7	78.4-78.6	75.9-79.4	49.5-50.9	55.9-57.8	55.9-57.6	57.4-56.5	55.9-57.8	55.7-57.4	55.7-57.6	56.3-57.4	57.5-58.6	56.1-58.2	56.1-58.2	
Gt 3	56.3-56.5	50.3-50.9	55.6-57	57.4-59.6	58.6	57.2	56.6	53	83.8	83.8	83.4	83.8	83.9	83.6	83.4	83.8	84	83.4	82.3	82.3	
Gt 4	97	78.8-73.1	77.6-80	71.3-74.2	74-75.4	76.9-77.6	78.9-79.6	50.3-51.1	56.3-56.6	56.3-56.6	55.9-56.3	56.3-56.6	56.1-56.7	55.9-56.5	55.6-56.5	55.6-56.5	55.5-56.7	55.5-56.7	55.5-55.7	55.5-55.7	
Gt 5	97-100	79.8-81.5	73.2-76.3	80.5-81.3	80.4-80.6	83.4-84.2	50.3-50.9	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.2-58.6	58.4-58.4	58.4-58.4	58.4-58.4	58.4-58.4	
Gt 6	96.5-99.6	75.1-79.3	76.9-77.5	86.3-87.7	84-85.2	49.9	55.7-57.4	55.3-57	55.7-57.4	55.3-56.8	55.3-56.8	55.3-56.8	55.3-56.8	55.3-56.8	55.3-56.8	55.5-57.2	55.9-57.6	55.7-57.2	54.3-56.1	54.3-56.1	
Gt 7	83.6-100	72.4-74.2	76.8-83	76.9-80.2	50.8-51.2	58-58.6	57.6-58.2	58-58.6	58-58.6	58-58.6	58-58.6	58-58.6	58-58.6	58-58.6	58-58.6	57.2-57.8	58-58.4	58.4-58.4	58.4-59.3	58.4-59.3	
Irkut			77.1		78	51.3	59.5	59.5	59.5	59.2	59.5	59.5	59.5	59.5	59.5	59.7	59.7	59.5	59	59	
Aravan				84	51.4	57.8	57.8	57.8	57.4	57.8	57.8	57.8	57.8	57.8	57.8	58.2	58.2	57.6	57	57	
Khujand					51.4	58	58	58	57.6	58	58	57.8	57.8	57.8	57.8	58.2	58.2	58.6	57.1	57.1	
WCBV						52.6	52.6	52.6	52.2	52.8	52.8	52.6	52.6	52.4	52.6	52.6	52.8	53.8	53.4	53.4	
LBVSA1982							100		99.8	99.8	99.6	99.4	99.6	99.6	99.4	99.4	98.3	85.2	82.1	82.1	
LBVSA1980(640)									99.6	99.8	99.6	99.4	99.6	99.6	99.4	99.4	96.7	85.2	82.1	82.1	
LBVSA1980(1248)										99.6	99.8	99.6	99.4	99.6	99.6	99.4	99.4	96.7	85.2	82.1	82.1
LBVSA1980(679)											99.4	99.2	99	99.2	99.2	99	99	96.3	84.8	81.7	81.7
LagSA2003											99.4	99.8	99.4	99.4	99.4	99.4	99.4	99.8	85.2	82.1	82.1
LagSA2004												99	99.6	99.6	99.6	99.6	99.6	99.6	99.5	81.9	81.9
Mongoose 2004												99	99	98.8	98.8	98.8	98.8	98.8	98.5	81.9	81.9
LBVSA2006													99.6	99.4	99.4	99.4	99.4	99.4	99.4	99.5	81.9
LBVZIM1986														99.6	98.3	98.3	98.3	98.3	98.3	98.3	81.9
LBVCAR1974															99.4	96.5	96.5	96.5	96.5	96.5	96.5
BVNIG1956																99.4	96.5	96.5	96.5	96.5	
LBVSEN1985																	99.4	96.5	96.5	96.5	
LBVAFR1994																		99.4	96.5	96.5	

APPENDIX 3

Experimental course and outcome of mice inoculated with various lyssavirus strains

VIRUS ISOLATE	EXPERIMENTAL GROUP	MICE IDENTIFICATION NUMBER	INCUBATION PERIOD (DAYS)	OUTCOME OF DISEASE	SEROLOGICAL RESPONSE*
LBVZIM1986	Group A	211	8	Died	-
		212	10	Died	-
		213	10	Died	-
		214	10	Died	-
		215	10	Died	-
	Group B	216	14	Died	-
		217	14	Died	-
		218	14	Died	-
		219	16	Died	-
		220	41	Died	1:5 (Day 21 and 35)
Group C	221			Survived	ND
	222			Survived	ND
	223	13		Died	ND
	224			Survived	ND
	225	16		Died	ND
Group D	226			Survived	1:625
	227			Survived	1:625
	228			Survived	1:625
	229	Showed symptoms on day 17-21 – Hind leg paralysis but recovered.		Survived	1:625
Group E	230	18		Died	-
	166	15		Died	ND
	167			Survived	ND
	168			Survived	ND
	169			Survived	ND
Group F	170			Survived	ND
	171			Survived	ND
	172			Survived	ND
	173			Survived	ND
	174			Survived	ND
LBVCAR1974	Group A	106	10	Died	-
		107	10	Died	-
		108	9	Died	-
		109	10	Died	-
		110	10	Died	-
Group B	Group B	111	12	Died	-
		112	12	Died	-
		114		Survived	-
		114		Survived	-
		115	11	Died	-
Group C	Group C	116	10	Died	ND
		117	12	Died	ND
		118		Survived	ND
		119		Survived	ND
		120		Survived	ND
Group D	Group D	121		Survived	-
		122		Survived	1:25



		123		Survived	1:25
		124		Survived	1:625
		125		Survived	1:25
	Group E	136	17	Died	-
		137		Survived	1:625
		138		Survived	1:625
		139		Survived	1:625
		140		Survived	1:625
	Group F	126		Survived	ND
		127	14	Died	ND
		128		Survived	ND
		129		Survived	ND
		130		Survived	ND
Mongoose2004	Group A	340	13	Died	-
		342	13	Died	-
		243	13	Died	-
		244	13	Died	-
		245	13	Died	-
	Group B	351	20	Died	-
		352	28	Died	-
		353	13	Died	-
		354	20	Died	-
		355		Survived	-
	Group C	346	20	Died	-
		347	28	Died	-
		348	13	Died	-
		349		Survived	-
		350		Survived	1:25
	Group D	356		Survived	-
		357		Survived	1:625
		358		Survived	1:25
		359		Survived	-
		360	39	Died – Showed sympto ms since day 13	-
	Group E	371		Survived	ND
		372	17	Died	ND
		373		Survived	ND
		374		Survived	ND
		275		Survived	ND
	Group F	361		Survived	ND
		362		Survived	ND
		363		Survived	ND
		364		Survived	ND
		365		Survived	ND
MOKVSA (252/97)	Group A	176	9	Died	-
		177	9	Died	-
		178	8	Died	-
		179	10	Died	-
		180	9	Died	-
	Group B	181	10	Died	-
		182	8	Died	-
		183	10	Died	-
		184	8	Died	-
		185	8	Died	-
	Group C	186	10	Died	-
		187	13	Died	-
		188	13	Died	-
		189	14	Died	-
		190	41	Died	1:625
	Group D	206		Survived	-
		207		Survived	1:625
		208		Survived	1:625
		209		Survived	-
		210		Survived	1:25



	Group E	191		Survived	1:625
		192		Survived	1:625
		193		Survived	1:5
		194	14	Died	-
		195		Survived	-
	Group F	196		Survived	-
		197		Survived	-
		198		Survived	-
		199		Survived	-
		200		Survived	-
WAmyotis spp	Group A	296	13	Died	-
		297	13	Died	-
		298	13	Died	-
		299	13	Died	-
		300	13	Died	-
	Group B	291	13	Died	-
		292	13	Died	-
		293	9	Died	-
		294	17	Died	-
		295	10	Died	-
	Group C	286	13	Died	-
		287	13	Died	-
		288	13	Died	-
		289	16	Died	-
		290		Survived	-
	Group D		17	Died	-
				Survived	1:625
				Survived	1:625
				Survived	1:25
				Survived	-
	Group E	281	13	Died	-
		282	13	Died	-
		283	13	Died	-
		284	13	Died	-
		285	13	Died	-
	Group F	276		Survived	-
		277		Survived	-
		278		Survived	-
		279		Survived	-
		280		Survived	-
LagSA2004	Group A	36	12	Died	-
		37	12	Died	-
		38	13	Died	-
		39	12	Died	-
		40	11	Died	-
	Group B	41	13	Died	-
		42		Survived	-
		43	14	Died	-
		44	14	Died	-
		45	14	Died	-
	Group C	46	14	Died	-
		47	15	Died	-
		48	16	Died	-
		49	33	Died	-
		50	19	Died	-
	Group D	66	16	Died	-
		67		Survived	1:125
		68		Survived	1:125
		69	22	Died	-
		70		Survived	1:125 (56)
	Group E	61	19	Died	Negative
		62		Survived	1:625
		63	14	Died	-
		64		Survived	1:625
		65	16	Died	-
	Group F	56		Survived	-
		57		Survived	-
		58		Survived	-
		59		Survived	-



		60		Survived	-
LBVSA1982	Group A	71	13	Died	-
		72	14	Died	-
		73	14	Died	-
		74	10	Died	-
		75	11	Died	-
	Group B	76	13	Died	-
		77	14	Died	-
		78	14	Died	-
		79	11	Died	-
		80	15	Died	-
	Group C	81	0	Died while bleeding	-
		82	14	Died	-
		83	6	Died while bleeding	-
		84	14	Died	-
		85	13	Died	-
	Group D	86		Survived	ND
		87		Survived	ND
		88		Survived	ND
		89		Survived	ND
		90		Survived	ND
	Group E	101	10	Died while bleeding	ND
		102		Survived	ND
		103	12	Died	ND
		104		Survived	ND
		105		Survived	ND
	Group F	91		Survived	ND
		92		Survived	ND
		93		Survived	ND
		94		Survived	ND
		95		Survived	ND
LBVSEN1985	Group A	1	7	Died	-
		2	9	Died	-
		3	6	Died	-
		4	7	Died	-
		5	8	Died	-
	Group B	11	7	Died	-
		12	11	Died	-
		13	8	Died	-
		14	8	Died	-
		15		Survived	1:625
	Group C	6	10	Died	-
		7	8	Died	-
		8		Survived	1:625
		9	12	Died	-
		10	7	Died	-
	Group D	16	13	Died	-
		17	8	Died	-
		18		Survived	1:3125
		19	16	Died	-
		20		Survived	1:125
	Group E	26	8	Died	-
		27	13	Died	-
		28	13	Died	-
		29	10	Died	-
		30	9	Died	-
	Group F	21		Survived	-
		22		Survived	-
		23	8	Died	-
		24	11	Died	-
		25		Survived	-
LagSA2003	Group A	3473	14	Died	-
		3454	15	Died	-
		3477	15	Died	-



		3476	15	Died	-
		No tag	16	Died	-
	Group B	3456	18	Died	-
		3472		Survived	1:625
		3455	19	Died	-
		3457	19	Died	-
		3471	18	Died	-
	Group C	3462		Survived	1:25
		3460	18	Died	-
		3461		Survived	1:25
		3459		Survived	1:25
		3458		Survived	1:25
	Group D	3463	21	Died	1:25
		3464		Survived	1:625
		3470		Survived	1:625
		3469		Survived	1:625
		3468		Survived	1:625
	Group E	3463	18	Died	1:25
		3464		Survived	1:625
		3470		Survived	1:625
		3469		Survived	1:625
		3468		Survived	1:625
	Group F	3500		Survived	-
		3449	21	Died while bleeding	-
		3467		Survived	-
		3460		Survived	-
		3465		Survived	-
LBVAFR1999	Group A		6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
	Group B		6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
	Group C		6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
	Group D		7	Died	ND
				Survived	ND
				Survived	ND
				Survived	ND
				Survived	ND
	Group E		6	Died	ND
			6	Died	ND
			6	Died	ND
			6	Died	ND
	Group F		7	Died	ND
				Survived	ND
				Survived	ND
				Survived	ND
				Survived	ND
LBVSA2006	Group A		10	Died	ND
			11	Died	ND
			11	Died	ND
			11	Died	ND
			11	Died	ND
	Group B		14	Died	ND
			14	Died	ND
			14	Died	ND
			14	Died	ND
			17	Died	ND
	Group C		19	Died	ND



			Survived	ND
Group D			Survived	ND
		18	Died	ND
Group E			Survived	ND
			Survived	ND
			Survived	ND
			Survived	ND
Group F			Survived	ND
			Survived	ND

(ND) – Not determined due to time constraints

(-) No response

* Antibody titer on Day 56 when the experiment was terminated except where indicated otherwise. Dilutions tested was 1:5; 1:25; 1:625 and 1:3125.

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