

Supplementary Material

List of the Carnivora MHC DQB and DRB exon 2 sequences used for the tests of trans-species polymorphism

Family	GenBank Accession number	Species	Allele
Canids	AM076472.1	<i>Canis familiaris</i>	Cafa-DRB-203
	DQ528655.1	<i>Canis familiaris</i>	Cafa-DQB-5401
	AY009508.1	<i>Canis lupus baileyi</i>	Calu-DRB-1
	AY009509.1	<i>Canis lupus baileyi</i>	Calu-DRB-2
	AY009514.1	<i>Canis lupus baileyi</i>	Calu-DRB-3
	AY009526.1	<i>Canis lupus baileyi</i>	Calu-DRB-4
	AY009522.1	<i>Canis lupus baileyi</i>	Calu-DRB-5
	AY009521.1	<i>Canis lupus</i>	Calu-DRB-5
	AY009510.1	<i>Canis lupus</i>	Calu-DRB-6
	AY009519.1	<i>Canis lupus</i>	Calu-DRB-7
	AY009513.1	<i>Canis lupus</i>	Calu-DRB-8
	AY009517.1	<i>Canis lupus</i>	Calu-DRB-9
	AY009518.1	<i>Canis lupus</i>	Calu-DRB-10
	AY009511.1	<i>Canis lupus</i>	Calu-DRB-11
	AY009512.1	<i>Canis rufus</i>	Caru-DRB-1
	AY009516.1	<i>Canis rufus</i>	Caru-DRB-2
	AY009515.1	<i>Canis rufus</i>	Caru-DRB-3
	AY009529.1	<i>Canis latrans</i>	Cala-DRB-8
	AY009523.1	<i>Canis latrans</i>	Cala-DRB-7
	AY009528.1	<i>Canis latrans</i>	Cala-DRB-6
	AY009527.1	<i>Canis latrans</i>	Cala-DRB-5
	AY009525.1	<i>Canis latrans</i>	Cala-DRB-4
	AY009524.1	<i>Canis latrans</i>	Cala-DRB-3
	AY009520.1	<i>Canis latrans</i>	Cala-DRB-2
	AY009530.1	<i>Canis latrans</i>	Cala-DRB-1
	EF690694.1	<i>Vulpes lagopus</i>	Vula-DRB-1
Felids	FJ210683.1	<i>Neofelis nebulosa</i>	Nene-DRB-201
	FJ210688.1	<i>Neofelis nebulosa</i>	Nene-DRB-202
	FJ210684.1	<i>Uncia uncia</i>	Paun-DRB-201
	FJ210685.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-201
	FJ210686.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-202
	FJ210687.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-203
	FJ210703.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-101
	FJ210718.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-401
	FJ210706.1	<i>Prionailurus bengalensis</i>	Prbe-DRB-501
	FJ210689.1	<i>Panthera tigris</i>	Pati-DRB-201
	FJ210690.1	<i>Panthera tigris</i>	Pati-DRB-202
	FJ210691.1	<i>Panthera tigris</i>	Pati-DRB-203
	FJ210692.1	<i>Panthera tigris</i>	Pati-DRB-204

	FJ210693.1	<i>Panthera tigris</i>	Pati-DRB-205
	FJ210696.1	<i>Panthera tigris</i>	Pati-DRB-206
	FJ210699.1	<i>Panthera tigris</i>	Pati-DRB-207
	FJ210709.1	<i>Panthera tigris</i>	Pati-DRB-301
	FJ210712.1	<i>Panthera tigris</i>	Pati-DRB-302
	FJ210713.1	<i>Panthera tigris</i>	Pati-DRB-303
	FJ210714.1	<i>Panthera tigris</i>	Pati-DRB-304
	FJ210716.1	<i>Panthera tigris</i>	Pati-DRB-305
	FJ210717.1	<i>Panthera tigris</i>	Pati-DRB-306
	FJ210694.1	<i>Catopuma temminckii</i>	Pate-DRB-201
	FJ210704.1	<i>Catopuma temminckii</i>	Pate-DRB-501
	FJ210705.1	<i>Catopuma temminckii</i>	Pate-DRB-502
	FJ210697.1	<i>Panthera leo</i>	Pale-DRB-201
	FJ210698.1	<i>Panthera leo</i>	Pale-DRB-202
	FJ210701.1	<i>Felis silvestris</i>	Fesi-DRB-101
	FJ210702.1	<i>Felis silvestris bieti</i>	Febi-DRB-101
	FJ210707.1	<i>Felis silvestris bieti</i>	Febi-DRB-502
	FJ210708.1	<i>Felis silvestris bieti</i>	Febi-DRB-503
	FJ210700.1	<i>Panthera pardus</i>	Papa-DRB-201
	FJ210710.1	<i>Panthera pardus</i>	Papa-DRB-301
	FJ210711.1	<i>Panthera pardus</i>	Papa-DRB-302
	FJ210695.1	<i>Otocolobus manul</i>	Otma-DRB-201
	FJ210715.1	<i>Otocolobus manul</i>	Otma-DRB-301
Ursids	AF458914.1	<i>Ursus maritimus</i>	Urma-DRB-01
	AF458915.1	<i>Ursus maritimus</i>	Urma-DRB-02
	AF458916.1	<i>Ursus maritimus</i>	Urma-DRB-03
	AF458917.1	<i>Ursus maritimus</i>	Urma-DRB-04
	AF458918.1	<i>Ursus maritimus</i>	Urma-DRB-05
	AF458919.1	<i>Ursus maritimus</i>	Urma-DRB-06
	AF458920.1	<i>Ursus maritimus</i>	Urma-DRB-07
	AF458921.1	<i>Ursus maritimus</i>	Urma-DRB-08
	AF458922.1	<i>Ursus maritimus</i>	Urma-DRB-09
	AF458923.1	<i>Ursus maritimus</i>	Urma-DRB-10
	AF458924.1	<i>Ursus maritimus</i>	Urma-DRB-11
	AF458925.1	<i>Ursus maritimus</i>	Urma-DRB-12
	AF458926.1	<i>Ursus maritimus</i>	Urma-DRB-13
	AF458927.1	<i>Ursus maritimus</i>	Urma-DRB-14
	AF458928.1	<i>Ursus maritimus</i>	Urma-DRB-15
	AF458929.1	<i>Ursus maritimus</i>	Urma-DRB-16
	AF458930.1	<i>Ursus maritimus</i>	Urma-DRB-17
	AF458931.1	<i>Ursus maritimus</i>	Urma-DRB-18
	AF458932.1	<i>Ursus maritimus</i>	Urma-DRB-19
	AF458933.1	<i>Ursus maritimus</i>	Urma-DRB-20
	AF458934.1	<i>Ursus maritimus</i>	Urma-DRB-21
	AF458935.1	<i>Ursus maritimus</i>	Urma-DRB-22

	AF458936.1	<i>Ursus maritimus</i>	Urma-DRB-23
	AF458937.1	<i>Ursus maritimus</i>	Urma-DRB-24
	AF458938.1	<i>Ursus maritimus</i>	Urma-DRB-25
	AB490476.1	<i>Ursus maritimus</i>	Urma-DRB-gd01
	AB490477.1	<i>Ursus maritimus</i>	Urma-DRB-gd02
	AB490485.1	<i>Melursus ursinus</i>	Urur-DRB-01
	AB490486.1	<i>Melursus ursinus</i>	Urur-DRB-02
	AB490487.1	<i>Melursus ursinus</i>	Urur-DRB-03
	AB490488.1	<i>Melursus ursinus</i>	Urur-DRB-04
	AB490489.1	<i>Tremarctos ornatus</i>	Tror-DRB-01
	AB490490.1	<i>Tremarctos ornatus</i>	Tror-DRB-02
	AB490479.1	<i>Ursus thibetanus</i>	Urth-DRB-02
	AB490480.1	<i>Ursus americanus</i>	Uram-DRB-01
	AB490481.1	<i>Ursus americanus</i>	Uram-DRB-02
	AB490482.1	<i>Ursus americanus</i>	Uram-DRB-03
	AB490483.1	<i>Helarctos malayanus</i>	Urml-DRB-01
	AB490484.1	<i>Helarctos malayanus</i>	Urml-DRB-02
	AB490478.1	<i>Ursus thibetanus</i>	Urth-DRB-01
	AB490457.1	<i>Ursus arctos</i>	Urar-DRB-01
	AB490458.1	<i>Ursus arctos</i>	Urar-DRB-02
	AB490459.1	<i>Ursus arctos</i>	Urar-DRB-03
	AB490460.1	<i>Ursus arctos</i>	Urar-DRB-04
	AB490461.1	<i>Ursus arctos</i>	Urar-DRB-05
	AB490462.1	<i>Ursus arctos</i>	Urar-DRB-06
	AB490463.1	<i>Ursus arctos</i>	Urar-DRB-07
	AB490464.1	<i>Ursus arctos</i>	Urar-DRB-08
	AB490465.1	<i>Ursus arctos</i>	Urar-DRB-09
	AB490466.1	<i>Ursus arctos</i>	Urar-DRB-10
	AB490467.1	<i>Ursus arctos</i>	Urar-DRB-11
	AB490468.1	<i>Ursus arctos</i>	Urar-DRB-12
	AB490469.1	<i>Ursus arctos</i>	Urar-DRB-13
	AB490470.1	<i>Ursus arctos</i>	Urar-DRB-14
	AB490471.1	<i>Ursus arctos</i>	Urar-DRB-15
	AB490472.1	<i>Ursus arctos</i>	Urar-DRB-16
	AB490473.1	<i>Ursus arctos</i>	Urar-DRB-17
	AB490474.1	<i>Ursus arctos</i>	Urar-DRB-18
	AB490475.1	<i>Ursus arctos</i>	Urar-DRB-19
	GQ496169.1	<i>Ailuropoda melanoleuca</i>	Aime-DRB3-05
	GQ496167.1	<i>Ailuropoda melanoleuca</i>	Aime-DRB3-03
	AY895158.1	<i>Ailuropoda melanoleuca</i>	Aime-DRB-4
	AY895156.1	<i>Ailuropoda melanoleuca</i>	Aime-DRB-2
Mustelid	HQ908092.1	<i>Meles_meles</i>	Meme-DRB-01
	HQ908093.1	<i>Meles_meles</i>	Meme-DRB-02
	HQ908094.1	<i>Meles_meles</i>	Meme-DRB-03
Procyonids	HM589210.1	<i>Procyon lotor</i>	Prlo-DRB-44

GU388312.1	Procyon lotor	Prlo-DRB-01
GU388314.1	Procyon lotor	Prlo-DRB-03
GU388315.1	Procyon lotor	Prlo-DRB-04
GU388316.1	Procyon lotor	Prlo-DRB-05
GU388317.1	Procyon lotor	Prlo-DRB-06
GU388318.1	Procyon lotor	Prlo-DRB-07
GU388319.1	Procyon lotor	Prlo-DRB-08
GU388320.1	Procyon lotor	Prlo-DRB-09
GU388321.1	Procyon lotor	Prlo-DRB-10
GU388322.1	Procyon lotor	Prlo-DRB-11
GU388323.1	Procyon lotor	Prlo-DRB-12
GU388324.1	Procyon lotor	Prlo-DRB-13
GU388325.1	Procyon lotor	Prlo-DRB-14
GU388326.1	Procyon lotor	Prlo-DRB-15
GU388327.1	Procyon lotor	Prlo-DRB-16
GU388370.1	Procyon lotor	Prlo-DRB-17
GU388328.1	Procyon lotor	Prlo-DRB-18
GU388329.1	Procyon lotor	Prlo-DRB-19
GU388330.1	Procyon lotor	Prlo-DRB-20
GU388331.1	Procyon lotor	Prlo-DRB-21
GU388332.1	Procyon lotor	Prlo-DRB-22
GU388333.1	Procyon lotor	Prlo-DRB-24
GU388334.1	Procyon lotor	Prlo-DRB-25
GU388335.1	Procyon lotor	Prlo-DRB-26
GU388336.1	Procyon lotor	Prlo-DRB-27
GU388337.1	Procyon lotor	Prlo-DRB-28
GU388338.1	Procyon lotor	Prlo-DRB-29
GU388339.1	Procyon lotor	Prlo-DRB-30
GU388340.1	Procyon lotor	Prlo-DRB-31
GU388371.1	Procyon lotor	Prlo-DRB-32
GU388341.1	Procyon lotor	Prlo-DRB-34
GU388342.1	Procyon lotor	Prlo-DRB-42
GU388343.1	Procyon lotor	Prlo-DRB-43
GU388344.1	Procyon lotor	Prlo-DRB-47
GU388372.1	Procyon lotor	Prlo-DRB-48
GU388345.1	Procyon lotor	Prlo-DRB-49
GU388346.1	Procyon lotor	Prlo-DRB-50
GU388348.1	Procyon lotor	Prlo-DRB-52
GU388349.1	Procyon lotor	Prlo-DRB-53
GU388350.1	Procyon lotor	Prlo-DRB-54
GU388351.1	Procyon lotor	Prlo-DRB-55
GU388352.1	Procyon lotor	Prlo-DRB-56
GU388353.1	Procyon lotor	Prlo-DRB-57
GU388373.1	Procyon lotor	Prlo-DRB-58
GU388374.1	Procyon lotor	Prlo-DRB-59

	GU388354.1	Procyon lotor	Prlo-DRB-62
	GU388375.1	Procyon lotor	Prlo-DRB-64
	GU388355.1	Procyon lotor	Prlo-DRB-68
	GU388356.1	Procyon lotor	Prlo-DRB-69
	GU388357.1	Procyon lotor	Prlo-DRB-70
	GU388358.1	Procyon lotor	Prlo-DRB-71
	GU388376.1	Procyon lotor	Prlo-DRB-73
	GU388360.1	Procyon lotor	Prlo-DRB-74
	GU388359.1	Procyon lotor	Prlo-DRB-75
	GU388361.1	Procyon lotor	Prlo-DRB-76
	GU388362.1	Procyon lotor	Prlo-DRB-78
	GU388377.1	Procyon lotor	Prlo-DRB-80
	GU388363.1	Procyon lotor	Prlo-DRB-81
	GU388364.1	Procyon lotor	Prlo-DRB-85
	GU388365.1	Procyon lotor	Prlo-DRB-90
	GU388366.1	Procyon lotor	Prlo-DRB-99
	GU388367.1	Procyon lotor	Prlo-DRB-100
	GU388368.1	Procyon lotor	Prlo-DRB-102
	GU388369.1	Procyon lotor	Prlo-DRB-103
Pinnipeds	DQ354689.1	Phocarcos hookeri	Phho93-32-DRB-0402
	AY491456.1	Zalophus californianus	Zaca-DRB-01
	AY491457.1	Zalophus californianus	Zaca-DRB-02
	AY491458.1	Zalophus californianus	Zaca-DRB-03
	AY491459.1	Zalophus californianus	Zaca-DRB-04
	AY491460.1	Zalophus californianus	Zaca-DRB-05
	AY491461.1	Zalophus californianus	Zaca-DRB-06
	AY491462.1	Zalophus californianus	Zaca-DRB-07
	AY491463.1	Zalophus californianus	Zaca-DRB-08
	AY491464.1	Zalophus californianus	Zaca-DRB-09
	AY491465.1	Zalophus californianus	Zaca-DRB-10
	AY491466.1	Zalophus californianus	Zaca-DRB-11
	AY491467.1	Zalophus californianus	Zaca-DRB-12
	HE663130.1	Arctocephalus galapagoensis	Arga_DRB_FM_FS_K3
	HE663131.1	Arctocephalus galapagoensis	Arga_DRB_FM_FS_K4
	HE663129.1	Arctocephalus galapagoensis	Arga_DRB_FM6_FS_K4
	HE663126.1	Zalophus wollebaeki	Zawo-DQB-01
	HE663127.1	Zalophus wollebaeki	Zawo-DQB-02
	HE663128.1	Zalophus wollebaeki	Zawo-DQB-03
	HE663098.1	Zalophus wollebaeki	Zawo-DRB-01
	HE663099.1	Zalophus wollebaeki	Zawo-DRB-02
	HE663100.1	Zalophus wollebaeki	Zawo-DRB-03
	HE663101.1	Zalophus wollebaeki	Zawo-DRB-04
	HE663102.1	Zalophus wollebaeki	Zawo-DRB-05
	HE663103.1	Zalophus wollebaeki	Zawo-DRB-06
	HE663104.1	Zalophus wollebaeki	Zawo-DRB-07

HE663105.1	Zalophus wollebaeki	Zawo-DRB-08
HE663106.1	Zalophus wollebaeki	Zawo-DRB-09
HE663107.1	Zalophus wollebaeki	Zawo-DRB-10
HE663108.1	Zalophus wollebaeki	Zawo-DRB-11
HE663109.1	Zalophus wollebaeki	Zawo-DRB-12
HE663110.1	Zalophus wollebaeki	Zawo-DRB-13
HE663111.1	Zalophus wollebaeki	Zawo-DRB-14
HE663112.1	Zalophus wollebaeki	Zawo-DRB-15
HE663114.1	Zalophus wollebaeki	Zawo-DRB-16
HE663113.1	Zalophus wollebaeki	Zawo-DRB-17
HE663115.1	Zalophus wollebaeki	Zawo-DRB-18
HE663116.1	Zalophus wollebaeki	Zawo-DRB-19
HE663117.1	Zalophus wollebaeki	Zawo-DRB-20
HE663118.1	Zalophus wollebaeki	Zawo-DRB-21
HE663119.1	Zalophus wollebaeki	Zawo-DRB-22
HE663120.1	Zalophus wollebaeki	Zawo-DRB-23
HE663121.1	Zalophus wollebaeki	Zawo-DRB-24
HE663122.1	Zalophus wollebaeki	Zawo-DRB-25
HE663123.1	Zalophus wollebaeki	Zawo-DRB-26
HE663124.1	Zalophus wollebaeki	Zawo-DRB-27
HE663125.1	Zalophus wollebaeki	Zawo-DXB-01
HQ456122.1	Halichoerus grypus	Hagr-DQB-01
HQ456123.1	Halichoerus grypus	Hagr-DQB-02
HQ456124.1	Halichoerus grypus	Hagr-DQB-03
HQ456125.1	Halichoerus grypus	Hagr-DQB-04
HQ456126.1	Halichoerus grypus	Hagr-DQB-05
AY007204.1	Monachus schauinslandi	Mosc-DQB-HMS2
AY007203.1	Monachus schauinslandi	Mosc-DQB-HMS1
AF111030.1	Mirounga angustirostris	Mian-DQB-NES1
AF111031.1	Mirounga angustirostris	Mian-DQB-NES2
AF111032.1	Mirounga leonine	Mile-DQB-SES1
AF111033.1	Mirounga leonine	Mile-DQB-SES3
AF111034.1	Mirounga leonine	Mile-DQB-SES4
AF111035.1	Mirounga leonine	Mile-DQB-SES5
AF111036.1	Mirounga leonine	Mile-DQB-SES6
AF111037.1	Mirounga leonina	Mile-DQB-SES7
AF111038.1	Mirounga leonina	Mile-DQB-SES8
KC544970	Phocarctos hookeri	Phho_1
KC544971	Phocarctos hookeri	Phho_2
KC544972	Phocarctos hookeri	Phho_3
KC544973	Phocarctos hookeri	Phho_4
KC544974	Phocarctos hookeri	Phho_5
KC544975	Phocarctos hookeri	Phho_6
KC544976	Phocarctos hookeri	Phho_7
KC544977	Phocarctos hookeri	Phho_8

	KC544978	Phocarctos hookeri	Phho_9
	KC544979	Phocarctos hookeri	Phho_10
	KC544980	Phocarctos hookeri	Phho_11
	KC544981	Phocarctos hookeri	Phho_12
	KC544982	Phocarctos hookeri	Phho_13
	KC544983	Phocarctos hookeri	Phho_14
	KC544984	Phocarctos hookeri	Phho_15
	KC544985	Phocarctos hookeri	Phho_16
	KC544986	Phocarctos hookeri	Phho_17
	KC544987	Phocarctos hookeri	Phho_18
	KC544988	Phocarctos hookeri	Phho_19
	KC544989	Phocarctos hookeri	Phho_20
	KC544990	Phocarctos hookeri	Phho_21
	KC544991	Phocarctos hookeri	Phho_22
	KC544992	Phocarctos hookeri	Phho_23
	KC544993	Phocarctos hookeri	Phho_24
	KC544994	Phocarctos hookeri	Phho_25
	KC544995	Phocarctos hookeri	Phho_26
	KC544996	Phocarctos hookeri	Phho_27
	KC544997	Phocarctos hookeri	Phho_28
	doi:10.5061/dryad.2kt7s	Phocarctos hookeri	Phho_DQB_1
	doi:10.5061/dryad.2kt7s	Phocarctos hookeri	Phho_DQB_2
Ungulates	NM_001113695.1	Sus scrofa	Susc-SLA-DRB1