

Supplemental Data S1. Pyrosequencing results for X-linked genes in mule chorionic girdle, chorion and fetus samples.

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% repl	Donkey% repl	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3669 CG	75.90%	24.10%	73.50%	26.50%	74.70%	25.30%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3680 CG	52.60%	47.40%	52.50%	47.50%	52.55%	47.45%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3703 CG	9.10%	90.90%	9.90%	90.10%	9.50%	90.50%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3561 CG	66.80%	33.20%	71.50%	28.50%	69.15%	30.85%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3713 CG	22.20%	77.80%	22.40%	77.60%	22.30%	77.70%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	4107 CG	58.80%	41.20%	60.90%	39.10%	59.85%	40.15%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3669 chorion	66.70%	33.30%	66.80%	33.20%	66.75%	33.25%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3680 chorion	41.70%	58.30%	39.90%	60.10%	40.80%	59.20%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3713 chorion	18.90%	81.10%	19.60%	80.40%	19.25%	80.75%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3669 fetus	31.60%	68.40%	32.70%	67.30%	32.15%	67.85%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3680 fetus	19.70%	80.30%	19.20%	80.80%	19.45%	80.55%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3561 fetus	30.00%	70.00%	31.20%	68.80%	30.60%	69.40%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	3713 fetus	22.10%	77.90%	21.30%	78.70%	21.70%	78.30%
H_NR_001564	chrX	<i>XIST</i>	XIST_SNP	T/C	4107 fetus	44.30%	55.70%	38.40%	61.60%	41.35%	58.65%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	3669 CG	51.80%	48.20%	52.20%	47.80%	52.00%	48.00%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	3680 CG	51.40%	48.60%	52.00%	48.00%	51.70%	48.30%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	3703 CG	54.60%	45.40%	54.80%	45.20%	54.70%	45.30%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	3561 CG	51.50%	48.50%	51.50%	48.50%	51.50%	48.50%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	3713 CG	51.80%	48.20%	52.50%	47.50%	52.15%	47.85%
ENSECAG00000022295	chrX	<i>AKAP17A</i>	CUHSNP00175936	C/A	4107 CG	51.70%	48.30%	50.50%	49.50%	51.10%	48.90%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3669 CG	28.90%	71.10%	27.30%	72.70%	28.10%	71.90%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3680 CG	52.10%	47.90%	50.90%	49.10%	51.50%	48.50%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3703 CG	-	-	-	-	NA	NA
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3561 CG	29.20%	70.80%	31.00%	69.00%	30.10%	69.90%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3713 CG	72.60%	27.40%	73.10%	26.90%	72.85%	27.15%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	4107 CG	37.60%	62.40%	38.50%	61.50%	38.05%	61.95%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3669 chorion	55.90%	44.10%	56.10%	43.90%	56.00%	44.00%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3680 chorion	67.90%	32.10%	67.50%	32.50%	67.70%	32.30%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3713 chorion	69.00%	31.00%	68.10%	31.90%	68.55%	31.45%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3669 fetus	59.10%	40.90%	59.90%	40.10%	59.50%	40.50%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3680 fetus	63.90%	36.10%	66.80%	33.20%	65.35%	34.65%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3561 fetus	58.80%	41.20%	58.90%	41.10%	58.85%	41.15%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	3713 fetus	56.10%	43.90%	57.20%	42.80%	56.65%	43.35%
ENSECAG00000009190	chrX	<i>TMSB4X</i>	CUHSNP00014035	G/T	4107 fetus	56.00%	44.00%	56.60%	43.40%	56.30%	43.70%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3669 CG	31.00%	69.00%	27.50%	72.50%	29.25%	70.75%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3680 CG	44.20%	55.80%	44.50%	55.50%	44.35%	55.65%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3710 CG	88.20%	11.80%	90.70%	9.30%	89.45%	10.55%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3561 CG	27.40%	72.60%	25.40%	74.60%	26.40%	73.60%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3713 CG	58.80%	41.20%	57.50%	42.50%	58.15%	41.85%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	4107 CG	32.50%	67.50%	31.00%	69.00%	31.75%	68.25%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3669 chorion	32.60%	67.40%	31.90%	68.10%	32.25%	67.75%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3680 chorion	52.90%	47.10%	52.40%	47.60%	52.65%	47.35%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3713 chorion	58.50%	41.50%	57.10%	42.90%	57.80%	42.20%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3669 fetus	59.10%	40.90%	57.50%	42.50%	58.30%	41.70%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3680 fetus	70.40%	29.60%	69.40%	30.60%	69.90%	30.10%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3561 fetus	59.80%	40.20%	57.30%	42.70%	58.55%	41.45%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	3713 fetus	60.20%	39.80%	59.10%	40.90%	59.65%	40.35%
ENSECAG00000006469	chrX	<i>EIF1AX</i>	CUHSNP00035642	T/C	4107 fetus	46.00%	54.00%	46.40%	53.60%	46.20%	53.80%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3669 CG	22.30%	77.70%	21.90%	78.10%	22.10%	77.90%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3680 CG	42.80%	57.20%	39.50%	60.50%	41.15%	58.85%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3710 CG	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3561 CG	25.80%	74.20%	26.70%	73.30%	26.25%	73.75%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3713 CG	66.60%	33.40%	66.30%	33.70%	66.45%	33.55%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	4107 CG	30.50%	69.50%	30.60%	69.40%	30.55%	69.45%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3669 chorion	26.20%	73.80%	26.60%	73.40%	26.40%	73.60%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3680 chorion	53.80%	46.20%	52.00%	48.00%	52.90%	47.10%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3713 chorion	63.80%	36.20%	65.30%	34.70%	64.55%	35.45%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3669 fetus	62.70%	37.30%	63.20%	36.80%	62.95%	37.05%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3680 fetus	74.00%	26.00%	73.80%	26.20%	73.90%	26.10%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3561 fetus	63.00%	37.00%	62.50%	37.50%	62.75%	37.25%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	3713 fetus	59.10%	40.90%	58.80%	41.20%	58.95%	41.05%
ENSECAG00000019889	chrX	<i>ATP6AP2</i>	CUHSNP00015316	C/T	4107 fetus	57.60%	42.40%	58.60%	41.40%	58.10%	41.90%
ENSECAG00000014002	chrX	<i>UBA1</i>	CUHSNP00036879	T/C	3669 CG	31.80%	68.20%	33.90%	66.10%	32.85%	67.15%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3680 CG	49.70%	50.30%	48.90%	51.10%	49.30%	50.70%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3703 CG	-	-	-	-	NA	NA
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3561 CG	34.10%	65.90%	33.90%	66.10%	34.00%	66.00%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3713 CG	64.40%	35.60%	64.30%	35.70%	64.35%	35.65%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	4107 CG	39.50%	60.50%	39.00%	61.00%	39.25%	60.75%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3669 chorion	39.00%	61.00%	40.70%	59.30%	39.85%	60.15%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3680 chorion	52.60%	47.40%	56.30%	43.70%	54.45%	45.55%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3713 chorion	56.40%	43.60%	57.50%	42.50%	56.95%	43.05%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3669 fetus	62.30%	37.70%	64.50%	35.50%	63.40%	36.60%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3680 fetus	70.30%	29.70%	70.90%	29.10%	70.60%	29.40%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3561 fetus	62.00%	38.00%	62.40%	37.60%	62.20%	37.80%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	3713 fetus	59.60%	40.40%	60.50%	39.50%	60.05%	39.95%
ENSECAG00000014002	chrX	<i>UBAI</i>	CUHSNP00036879	T/C	4107 fetus	54.40%	45.60%	56.40%	43.60%	55.40%	44.60%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3669 CG	NA	NA	25.20%	74.80%	25.20%	74.80%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3680 CG	44.70%	55.30%	43.10%	56.90%	43.90%	56.10%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3703 CG	-	-	-	-	NA	NA
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3561 CG	29.60%	70.40%	31.00%	69.00%	30.30%	69.70%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3713 CG	57.40%	42.60%	56.50%	43.50%	56.95%	43.05%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	4107 CG	29.70%	70.30%	32.40%	67.60%	31.05%	68.95%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3669 chorion	38.10%	61.90%	39.10%	60.90%	38.60%	61.40%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3680 chorion	46.50%	53.50%	44.80%	55.20%	45.65%	54.35%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3713 chorion	52.30%	47.70%	49.50%	50.50%	50.90%	49.10%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3669 fetus	48.60%	51.40%	49.90%	50.10%	49.25%	50.75%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3680 fetus	55.80%	44.20%	55.80%	44.20%	55.80%	44.20%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3561 fetus	53.10%	46.90%	53.00%	47.00%	53.05%	46.95%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	3713 fetus	49.80%	50.20%	50.50%	49.50%	50.15%	49.85%
ENSECAG00000012900	chrX	<i>MSN</i>	CUHSNP00099373	C/A	4107 fetus	49.10%	50.90%	47.00%	53.00%	48.05%	51.95%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3669 CG	30.00%	70.00%	31.90%	68.10%	30.95%	69.05%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3680 CG	49.80%	50.20%	50.00%	50.00%	49.90%	50.10%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3710 CG	93.50%	6.50%	96.10%	3.90%	94.80%	5.20%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3561 CG	NA	NA	34.80%	65.20%	34.80%	65.20%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3713 CG	64.90%	35.10%	64.70%	35.30%	64.80%	35.20%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	4107 CG	40.10%	59.90%	43.00%	57.00%	41.55%	58.45%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3669 chorion	31.20%	68.80%	38.70%	61.30%	34.95%	65.05%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3680 chorion	53.30%	46.70%	57.00%	43.00%	55.15%	44.85%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3713 chorion	57.60%	42.40%	61.10%	38.90%	59.35%	40.65%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3669 fetus	56.80%	43.20%	62.40%	37.60%	59.60%	40.40%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3680 fetus	66.40%	33.60%	71.60%	28.40%	69.00%	31.00%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3561 fetus	60.80%	39.20%	67.40%	32.60%	64.10%	35.90%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	3713 fetus	62.70%	37.30%	62.20%	37.80%	62.45%	37.55%
ENSECAG00000010771	chrX	<i>PDZD11</i>	CUHSNP00021810	C/G	4107 fetus	54.40%	45.60%	58.70%	41.30%	56.55%	43.45%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3669 CG	20.80%	79.20%	22.00%	78.00%	21.40%	78.60%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3680 CG	42.80%	57.20%	43.00%	57.00%	42.90%	57.10%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3710 CG	96.20%	3.80%	100.00%	0.00%	98.10%	1.90%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3561 CG	27.60%	72.40%	24.40%	75.60%	26.00%	74.00%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3713 CG	61.70%	38.30%	62.00%	38.00%	61.85%	38.15%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	4107 CG	28.50%	71.50%	28.40%	71.60%	28.45%	71.55%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3669 chorion	23.60%	76.40%	21.40%	78.60%	22.50%	77.50%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3680 chorion	45.60%	54.40%	38.60%	61.40%	42.10%	57.90%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3713 chorion	52.30%	47.70%	46.50%	53.50%	49.40%	50.60%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3669 fetus	54.70%	45.30%	48.70%	51.30%	51.70%	48.30%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3680 fetus	64.40%	35.60%	58.10%	41.90%	61.25%	38.75%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3561 fetus	55.60%	44.40%	52.80%	47.20%	54.20%	45.80%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	3713 fetus	51.30%	48.70%	47.60%	52.40%	49.45%	50.55%
ENSECAG00000010852	chrX	<i>RPS4X</i>	CUHSNP00008588	G/A	4107 fetus	52.40%	47.50%	45.00%	55.00%	48.70%	51.25%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3669 CG	15.20%	84.80%	14.80%	85.20%	15.00%	85.00%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3680 CG	33.20%	66.80%	34.00%	66.00%	33.60%	66.40%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3710 CG	95.40%	4.60%	96.40%	3.60%	95.90%	4.10%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3561 CG	18.50%	81.50%	17.70%	82.30%	18.10%	81.90%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3713 CG	54.30%	45.70%	54.10%	45.90%	54.20%	45.80%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	4107 CG	23.00%	77.00%	23.00%	77.00%	23.00%	77.00%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3669 chorion	39.30%	60.70%	42.50%	57.50%	40.90%	59.10%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3680 chorion	59.10%	40.90%	56.80%	43.20%	57.95%	42.05%
ENSECAG00000012612	chrX	<i>SH3BGRL</i>	CUHSNP00079637	A/G	3713 chorion	56.60%	43.40%	54.90%	45.10%	55.75%	44.25%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3669 CG	33.90%	66.10%	35.20%	64.80%	34.55%	65.45%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3680 CG	57.10%	42.90%	57.30%	42.70%	57.20%	42.80%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3703 CG	-	-	-	-	NA	NA
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3561 CG	46.30%	53.70%	47.10%	52.90%	46.70%	53.30%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3713 CG	78.10%	21.90%	77.70%	22.30%	77.90%	22.10%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	4107 CG	45.90%	54.10%	46.00%	54.00%	45.95%	54.05%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3669 chorion	33.60%	66.40%	34.40%	65.60%	34.00%	66.00%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3680 chorion	61.00%	39.00%	61.20%	38.80%	61.10%	38.90%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3713 chorion	75.00%	25.00%	73.70%	26.30%	74.35%	25.65%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3669 fetus	59.50%	40.50%	61.30%	38.70%	60.40%	39.60%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3680 fetus	71.20%	28.80%	71.90%	28.10%	71.55%	28.45%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3561 fetus	60.50%	39.50%	59.20%	40.80%	59.85%	40.15%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	3713 fetus	55.40%	44.60%	55.50%	44.50%	55.45%	44.55%
ENSECAG00000018500	chrX	<i>GLA</i>	CUHSNP00035198	T/G	4107 fetus	54.40%	45.60%	55.00%	45.00%	54.70%	45.30%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3669 CG	12.50%	87.50%	12.40%	87.50%	12.45%	87.50%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3680 CG	31.70%	68.30%	35.60%	64.40%	33.65%	66.35%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3710 CG	97.10%	2.90%	94.10%	5.90%	95.60%	4.40%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3561 CG	12.20%	87.80%	11.20%	88.80%	11.70%	88.30%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3713 CG	58.40%	41.60%	57.30%	42.70%	57.85%	42.15%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	4107 CG	14.50%	85.50%	14.10%	85.90%	14.30%	85.70%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3669 chorion	13.10%	86.90%	12.60%	87.40%	12.85%	87.15%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3680 chorion	35.30%	64.70%	34.70%	65.30%	35.00%	65.00%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3713 chorion	50.70%	49.30%	49.70%	50.30%	50.20%	49.80%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3669 fetus	49.10%	50.90%	49.70%	50.30%	49.40%	50.60%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3680 fetus	68.60%	31.40%	68.00%	32.00%	68.30%	31.70%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3561 fetus	57.10%	42.90%	56.20%	43.80%	56.65%	43.35%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	3713 fetus	51.50%	48.50%	50.90%	49.10%	51.20%	48.80%
ENSECAG00000010802	chrX	<i>AMMECRI</i>	CUHSNP00018909	C/G	4107 fetus	44.40%	55.60%	49.60%	50.40%	47.00%	53.00%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3669 CG	29.10%	70.90%	29.10%	70.90%	29.10%	70.90%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3680 CG	40.70%	59.30%	41.00%	59.00%	40.85%	59.15%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3703 CG	-	-	-	-	NA	NA
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3561 CG	34.40%	65.60%	31.40%	68.60%	32.90%	67.10%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3713 CG	49.70%	50.30%	51.10%	48.90%	50.40%	49.60%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	4107 CG	36.10%	63.90%	34.60%	65.40%	35.35%	64.65%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3669 chorion	38.50%	61.50%	39.60%	60.40%	39.05%	60.95%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3680 chorion	47.00%	53.00%	47.90%	52.10%	47.45%	52.55%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3713 chorion	37.40%	62.60%	40.10%	59.90%	38.75%	61.25%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3669 fetus	58.20%	41.80%	60.00%	40.00%	59.10%	40.90%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3680 fetus	72.50%	27.50%	72.70%	27.30%	72.60%	27.40%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3561 fetus	63.20%	36.80%	62.70%	37.30%	62.95%	37.05%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	3713 fetus	56.40%	43.60%	57.90%	42.10%	57.15%	42.85%
ENSECAG00000020907	chrX	<i>NDUFA1</i>	CUHSNP00030331	A/G	4107 fetus	46.10%	53.90%	46.80%	53.20%	46.45%	53.55%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3669 CG	21.60%	78.40%	21.30%	78.70%	21.45%	78.55%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3680 CG	39.50%	60.50%	40.60%	59.40%	40.05%	59.95%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3710 CG	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3561 CG	23.10%	76.90%	22.30%	77.70%	22.70%	77.30%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3713 CG	100.00%	0.00%	55.00%	45.00%	77.50%	22.50%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	4107 CG	29.80%	70.20%	28.60%	71.40%	29.20%	70.80%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3669 chorion	21.40%	78.60%	20.90%	79.10%	21.15%	78.85%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3680 chorion	42.40%	57.60%	40.40%	59.60%	41.40%	58.60%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3713 chorion	50.30%	49.70%	50.80%	49.20%	50.55%	49.45%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3669 fetus	62.90%	37.10%	62.20%	37.80%	62.55%	37.45%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3680 fetus	74.40%	25.60%	73.40%	26.60%	73.90%	26.10%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3561 fetus	66.50%	33.60%	66.70%	33.30%	66.60%	33.45%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	3713 fetus	64.10%	35.90%	63.50%	36.50%	63.80%	36.20%
ENSECAG00000001360	chrX	<i>AIFM1</i>	CUHSNP00176322	T/C	4107 fetus	54.60%	45.40%	54.00%	46.00%	54.30%	45.70%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3669 CG	28.00%	72.00%	29.50%	70.50%	28.75%	71.25%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3680 CG	48.50%	51.50%	50.90%	49.10%	49.70%	50.30%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3710 CG	100.00%	0.00%	100.00%	0.00%	100.00%	0.00%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3561 CG	29.10%	70.90%	31.00%	69.00%	30.05%	69.95%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3713 CG	70.40%	29.60%	70.30%	29.70%	70.35%	29.65%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	4107 CG	33.30%	66.70%	34.20%	65.80%	33.75%	66.25%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3669 chorion	38.60%	61.40%	41.70%	58.30%	40.15%	59.85%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3680 chorion	54.50%	45.50%	57.40%	42.60%	55.95%	44.05%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3713 chorion	59.60%	40.40%	62.20%	37.80%	60.90%	39.10%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3669 fetus	63.60%	36.40%	63.80%	36.20%	63.70%	36.30%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3680 fetus	74.50%	25.50%	73.70%	26.30%	74.10%	25.90%
ENSECAG000000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3561 fetus	65.40%	34.60%	66.40%	33.60%	65.90%	34.10%

gene_id	chr	gene name	SNP	H/D allele	Sample*	Horse% rep1	Donkey% rep1	Horse% rep2	Donkey% rep2	Horse% Average	Donkey% average
ENSECAG00000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	3713 fetus	64.60%	35.40%	65.40%	34.60%	65.00%	35.00%
ENSECAG00000021380	chrX	<i>RBMX</i>	CUHSNP00018346	A/T	4107 fetus	60.80%	39.20%	64.60%	35.40%	62.70%	37.30%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3669 CG	38.40%	61.60%	33.10%	66.90%	35.75%	64.25%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3680 CG	43.30%	56.70%	41.90%	58.10%	42.60%	57.40%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3710 CG	94.00%	6.00%	93.90%	6.10%	93.95%	6.05%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3561 CG	44.60%	55.40%	44.20%	55.80%	44.40%	55.60%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3713 CG	53.90%	46.10%	54.60%	45.40%	54.25%	45.75%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	4107 CG	43.40%	56.60%	47.40%	52.60%	45.40%	54.60%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3669 chorion	34.30%	65.70%	33.70%	66.30%	34.00%	66.00%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3680 chorion	49.70%	50.30%	49.40%	50.60%	49.55%	50.45%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3713 chorion	55.90%	44.10%	60.10%	39.90%	58.00%	42.00%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3669 fetus	65.60%	34.40%	65.10%	34.90%	65.35%	34.65%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3680 fetus	71.50%	28.50%	69.70%	30.30%	70.60%	29.40%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3561 fetus	64.10%	35.90%	66.90%	33.10%	65.50%	34.50%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	3713 fetus	59.40%	40.60%	65.00%	35.00%	62.20%	37.80%
H_NM_001017980	chrX	<i>VMA21</i>	CUHSNP00176360	G/A	4107 fetus	56.90%	43.10%	56.60%	43.40%	56.75%	43.25%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3669 CG	23.60%	76.40%	24.40%	75.60%	24.00%	76.00%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3680 CG	30.10%	69.90%	28.20%	71.80%	29.15%	70.85%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3703 CG	-	-	-	-	NA	NA
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3561 CG	24.70%	75.30%	26.90%	73.10%	25.80%	74.20%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3713 CG	47.30%	52.70%	45.80%	54.20%	46.55%	53.45%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	4107 CG	24.40%	75.60%	26.70%	73.30%	25.55%	74.45%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3669 chorion	28.20%	71.80%	29.70%	70.30%	28.95%	71.05%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3680 chorion	34.20%	65.80%	34.10%	65.90%	34.15%	65.85%
ENSECAG00000022440	chrX	<i>HCFC1</i>	CUHSNP00041334	C/T	3713 chorion	39.80%	60.20%	40.10%	59.90%	39.95%	60.05%

*: Mule 3703 and 3710 are male controls. 100% maternal expression is expected for X-linked genes outside PAR.

The raw pyrosequencing allele quantification ratios were listed here without background subtraction.