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Analysis of Swine Leukocyte Antigen Haplotypes in Yucatan Miniature Pigs Used as Biomedical Model Animal

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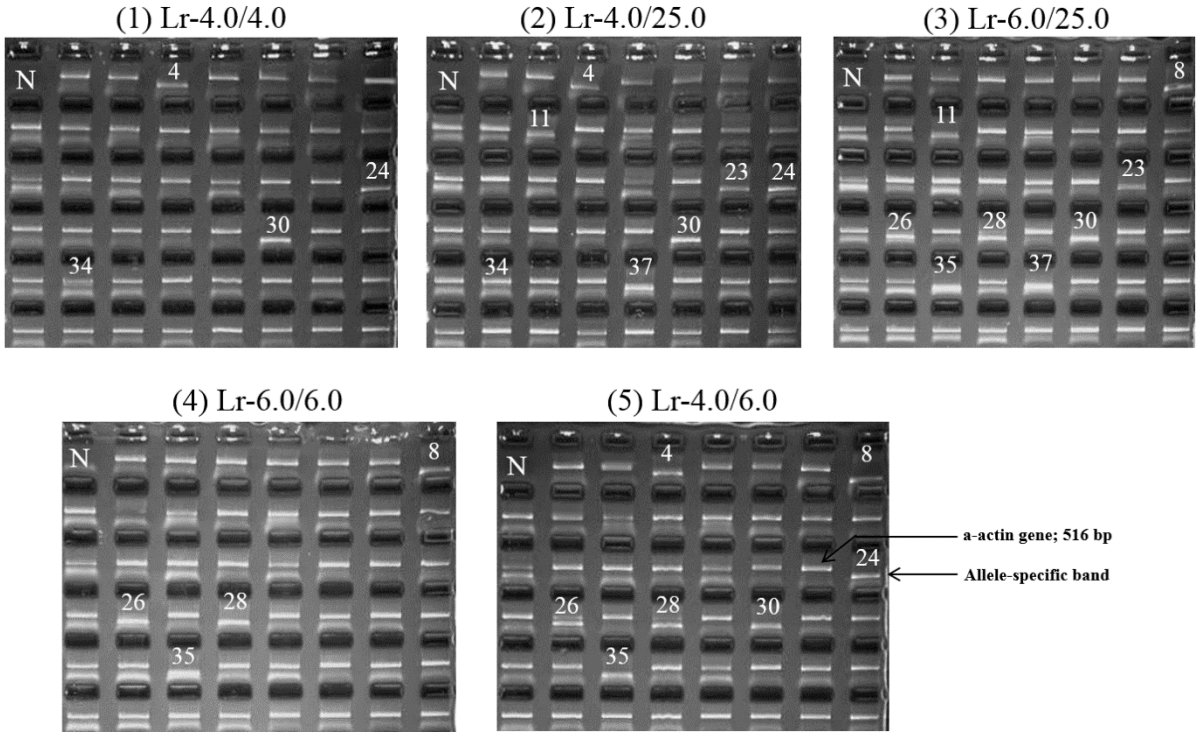
- Supplementary Data –

Supplementary Table 1. Sequence-specific PCR primers for genotyping swine leukocyte antigen (SLA) class I alleles

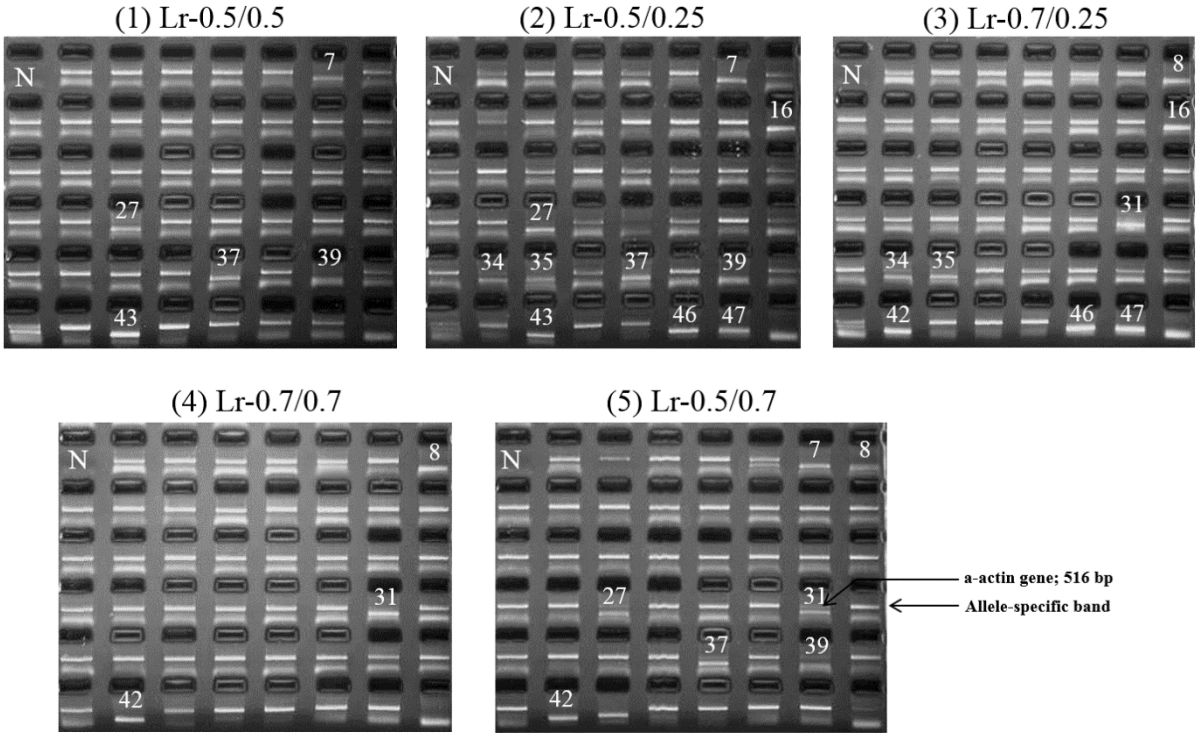
Lane	Group specicity	Allele specificity	primer sequence (5' → 3')	Product size (bp)	Primer position
1	Negative Control	Porcine *ACTA1*	F: CGTGGAAGATACGCAGTTCGTGT R: GTCTGTGCGTTGTCCTTGCTGA	516	+21 +384
2	SLA-1*01XX(all)	SLA-1*0101~02/01rh28	F: CGGGGTCAGGGTCTCACACCTA R: CCTCCTACGCTCCGCCACATT	209	+347 +514
3	SLA-1*02XX(all)	SLA-1*0201~02/02we02	F: CATTTCGTGCGGTTCGACAACT R: GGTGTTCAGGCCCACTCGGAG	147	+178 +283
4	SLA-1*04XX(all)	SLA-1*0401/04gx01/04gz01/04we01	F: GCCTGACCGCGGGGACTCT R: GTAAGTCTGTGCGGTTTCCTTGACA	181	+123 +261
5	SLA-1*05XX(all); SLA-1*an02	SLA-1*0501; SLA-1*an02	F: CCCCACTCCCTCAGCTATTTCTC R: GGAAAGTCTGTGAGGTGTCCCTTTG	220	+89 +262
6	SLA-1*06XX(all); SLA-1*13XX	SLA-1*0601/06an04; SLA-1*1301	F: GCCTGACCGCGGGGACTCT R: CTTGACTTTCCGCGTCTCCTC	163	+123 +247
7	SLA-1*07XX(all)	SLA-1*0701~02	F: GCCGGGTCTCACACCATCCAGAT R: GGCCCTGCAGGTAGCTCCTCAAT	220	+353 +528
8	SLA-1*08XX(all)	SLA-*0801/08an03/08Lw02/08ms05/08pt13/08sk11/08sm08/08sy01	F: GTGGACTCCCGCTTCTTCATT R: CTCCCGATCCCAATACTCCG	138	+135 +233
9	SLA-1*09XX(all)	SLA-1*0901/09sm09	F: CCACTCCCTGAGCTATTTCTT R: GATCTGTGTCTCCCGATCCCAATAG	193	+89 +237
10	SLA-1*w10XX(all)	SLA-1*w10cs01/w10sm21	F: CTCCTCCTCCGCGGGTACGA R: CCACTCCACACACGTGCCCTC	180	+404 +544
11	SLA-1*11XX(all)	SLA-1*1101~03/11mp11/11yn01	F: GTGTYCCGGCCCGACC R: TGTGCGYTGCCCATGACAC	182	+112 +260
12	SLA-1*12XX(all)	SLA-1*1201/12hy01/12Lw01	F: GTTCGACAGCGACGCCCTC R: GGTTAATCTGTGCGGTTTCCTTGA	119	+186 +263
13	SLA-1*13XX(all)	SLA-1*1301/13ms21	F: CTCACACCCTCCAGAGCATGTTT R: CCCTGCAGGTAGCTCCTCCTA	211	+360 +528
14	SLA-1*14XX(all)	SLA-1*1401	F: CCACTCCCTGAGCTATTTCTT R: GGTTAATCTGTGCGTTGTCCATGACA	219	+89 +261
15	SLA-1*15XX(all); SLA-1*es11; SLA-2*01XX(all)	SLA-1*1501; SLA-1*es11; SLA-2*0101~02	F: CCCCACTCCCTCAGCTATTTCTC R: TGTAGTAGCCGCGCAGGGTC	253	+89* +300*
16	SLA-1*16XX(all)	SLA-1*1601	F: CGTGGACTCCCGCTTCTTCATT	173	+135

			R: GGAAAGTCTGTGAGGTGTCCCTTTG		+262
17	SLA-1*16XX(all); SLA-1*an02; SLA-2*03XX(all); SLA-2*es22	SLA-1*1601; SLA-1*an02; SLA-2*0301~02/03gz01;SLA-2*es22	F: GCAGTTCGTGCGGTTCGACAGC R: CTCGGTAAGTCTGTGAGGTGTCCCTTTGTA	134	+175* +260*
18	SLA-1*cs02	SLA-1*cs02	F: CTCACACCCTCCAGAGCATGTTT R: TGCAGGTAGCTCCTCTCTCC	208	+360 +526
19	SLA-1*rh03; SLA-2*es22	SLA-1*rh03; SLA-2*es22	F: GGTACAGWCAGTAYGSCTACGACA R: TTCCCCATCTCCAGGTATCTGC	193	+421* +569*
20	SLA-1*rh03; SLA-1*st11	SLA-1*rh03; SLA-1*st11	F: CGCACCGAAACCGAGGGA R: GCGCAGGTTGTTCAGGCT	130	+197 +292
21	SLA-1*sk13	SLA-1*sk13	F: CAGGGTCTCACACCATCCAGAC R: GCCTCATGGGCCGCCTT	196	+353 +505
22	SLA-3*01XX(all)	SLA-3*0101/01ev04/01rh12/01rh28	F: CTCCGCGGGTACAGTCAGTTT R: GAGCCACTCCACACACGC	177	+411 +550
23	SLA-3*03XX(all); SLA-3*08XX(all)	SLA-3*0301~04/03an02/03an04/03an05/03pt31;SLA-3*0801	F: TCYTCCTCCRCGGGTACCA R: GAGCCACTCCACACASGC	183	+404 +550
24	SLA-3*04XX(all); SLA-3*hb06	SLA-3*0401~02/04es32;SLA-3*hb06	F: GGAAGCCCCGTTTCATCGAA R: GCAGGTTTTTCAGGTTCACTCGGA	192	+135 +284
25	SLA-3*05XX(all)	SLA-3*0501~03/05sw01	F: CGTGGAAGATACGCAGTTCGTGT R: GTCTGTGCGTTGTCCTTGCTGA	138	+166 +260
26	SLA-3*06XX(all); SLA-3*07XX(all)	SLA-3*0601~02;SLA-3*070101~02/07Lw02/07rh34	F: CGACGTGGGRCCAGACT R: CGCGCCCTCCAGGTAGCTT	187	+382 +534
27	SLA-3*07XX(all)	SLA-3*070101~02/07Lw02/07rh34	F: CGACCGCAGGAAGCCCCGT R: CCTCATCCCAATACTCCTGCCA	151	+126 +238'
28	SLA-3*06XX	SLA-3*0601	F: CGACGTGGGRCCAGACT R: CATCGGCCGCCTCCCA	152	+382 +502
29	SLA-3*06XX	SLA-3*0602	F: GCAGGAAGCCCCGTTTCAC R: TCCTCATCCCAATACTCCTGCCT	139	+131 +229
30	SLA-1*11XX; SLA-3*03XX; SLA-3*04XX(all); SLA-3*hb06	SLA-1*1103;SLA-3*0301~04/03an02/03an04/03an05;SLA-3*0401~02/04es32;SLA-3*hb06	F: TCCCCACTCCCTGAGGTATTTCG R: CGGCTCCATCTGCGGATTG	139	+88 +186
31	SLA-2*01XX(all)	SLA-2*0101~02	F: CACGACCGCGGGGAGC R: GTGCGCTGCCCATGACG	172	+130 +270
32	SLA-2*02XX(all)	SLA-2*0201~02	F: CTCCGCGGGTACAGTCAGTTT R: CTGCTCCGCCACATTGGCT	138	+420 +519
33	SLA-2*03XX(all)	SLA-2*0301~02/03gz01	F: AGTATTGGGATCGGGAGACRCAGATA R: CTGGTTGTAGTAGTCGCGCAGGG	89	+270 +311
34	SLA-2*04XX(all)	SLA-2*0401/040201~02	F: AGGGAACCTGCGCACAGC R: CACGTCGCAGCCGTACATGA	311	+314 +362
35	SLA-2*05XX(all)	SLA-2*0501~03/05rh03/05rh34/05sy01	F: CGGGCGCCGTGGATAGAGA R: CCTCGCTCTGGTTGTAGTAGCCAAG	127	+232 +316
36	SLA-2*06XX(all)	SLA-2*0601~02/06an03/06me01/06sv01	F: CGCCCCGAATCCGAGGAAA R: GGKTGTTCAGGYYCMCTCGGTA	125	+207 +292
37	SLA-2*07XX(all)	SLA-2*0701/07an05/07rh12/07we01	F: GTCATGGTCTCACACCCTCCAGGT R: TCCCTCCGCCACATTGGCT	199	+362 +519
38	SLA-2*w08XX(all)	SLA-2*w08gx01/w08hy01/w08sw01	F: CGCCCCGAATCCGAGGAAA R: GGTSTTCAGGYCCACTCGGTT	126	+207 +292
39	SLA-2*w09XX(all)	SLA-2*w09an02/w09pt22/w09sn01	F: TGGGACCAGACGGGCTCT R: CCTGCAGGTAGCTCCTCCAG	177	+397 +537
40	SLA-2*10XX(all)	SLA-2*1001/10an01/10es21/10sk21/10sm01	F: AATCTCCGCAGATTCCAAAGATGC R: CCCGCACTCACCCGCCTGA	104	+4 +66
41	SLA-2*11XX(all)	SLA-2*110101~02/11so01	F: GACGCTCCGAATCCGAGGGA R: TGTGCGCAGGTACCCTCTGTAAA	126	+206 +290
42	SLA-1*es11; SLA-2*12XX(all)	SLA-1*es11;SLA-2*1201/12Lw01	F: CTCCGCGGGTACAGTCAGTTC R: GCCTTGCAGGTAGCTCCTCCAG	159	+411* +528*
43	SLA-1*11XX; SLA-2*w13XX(all)	SLA-1*1103;SLA-2*w13sm20	F: TMGARMAGGAGGGGCAGGG R: CGGGCTCGCTCTGGTTGTAGTA	117	+236* +313*
44	SLA-1*09XX(all); SLA-	SLA-1*0901/09sm09;SLA-	F: GACGCTCCGAATCCGAGGGA	131	+197*

	2*w14XX(all); SLA-2*16XX(all) SLA-2*jh02	2*w14yn01;SLA-2*1601;SLA-2*jh02	R: CGCAGGKTSTTCAGGCC		+292*
45	SLA-2*15XX(all); SLA-3*08XX(all)	SLA-2*1501;SLA-3*0801	F: CGACCKCAGGAAGCCCCGT R: CGCGCAGGKTGTTCAGGC	203	+126* +293*
46	SLA-2*06XX; SLA-2*w09XX; SLA-*16XX(all)	SLA-2*0601~02/06me01;SLA-2*w09an02/w09sn01;SLA-2*1601	F: CCGCTTCCTCACCGTCGGGT R: GTAGTAGCCGCGCAGGGTG	196	+151 +309
47	SLA-2*an04	SLA-2*an04	F: GACCTCTGTGACTCCCGCTTCC R: TTCCTATCCCAATACTCCTGCCCT	143	+139 +237
48	SLA-2*jh02	SLA-2*jh02	F: CGTGGACTCCCGCTTCCTCA R: TCGGTAAGTCTGTGCGGTTTCCTTGTAA	175	+142 +270



Supplementary Figure 1. SLA class I haplotypes for the Yucatan miniature pigs. (1) Lr-4.0 homozygote (lane 4; SLA-1*04XX, lane 24 and 30; SLA-3*04XX (hb06), lane 34; SLA-2*04XX), (2) Lr-4.0 (lane 4; SLA-1*04XX, lane 24 and 30; SLA-3*04XX (hb06), lane 34; SLA-2*04XX) and Lr-25.0 (lane 11; SLA-1*11XX, lane 23; SLA-3*03XX, lane 37; SLA-2*07XX), (3) Lr-6.0 (lane 8; SLA-1*08XX, lane 26 and 28; SLA-3*06XX(0601), lane 35; SLA-2*05XX) and Lr-25.0 (lane 11; SLA-1*11XX, lane 23; SLA-3*03XX, lane 37; SLA-2*07XX), (4) Lr-6.0 homozygote (lane 8; SLA-1*08XX, lane 26 and 28; SLA-3*06XX(0601), lane 35; SLA-2*05XX) and (5) Lr-4.0 (lane 4; SLA-1*04XX, lane 24 and 30; SLA-3*04XX (hb06), lane 34; SLA-2*04XX) and Lr-25.0 (lane 11; SLA-1*11XX, lane 23; SLA-3*03XX, lane 37; SLA-2*07XX)



Supplementary Figure 2. SLA class II haplotypes for the Yucatan miniature pigs. (1) Lr-0.5 homozygote (lane 7; DRB1*05XX, lane 27, 37 and 39; DQB1*02XX, lane 43; DQA*02XX) (2) Lr-0.5 (lane 7; DRB1*05XX, lane 27, 37 and 39; DQB1*02XX, lane 43; DQA*02XX) and Lr-0.25 (lane 16; DRB1*13XX, lane 34 and 35; DQB1*09XX, lane 46 and 47; DQA*04XX+w05XX) (3) Lr-0.7 (lane 8; DRB1*06XX, lane 31; DQB1*06XX, lane 42; DQA*01XX) and Lr-0.25 (lane 16; DRB1*13XX, lane 34 and 35; DQB1*09XX, lane 46 and 47; DQA*04XX+w05XX) (4) Lr-0.7 homozygote (lane 8; DRB1*06XX, lane 31; DQB1*06XX, lane 42; DQA*01XX) (5) Lr-0.5 (lane 7; DRB1*05XX, lane 27, 37 and 39; DQB1*02XX, lane 43; DQA*02XX) and Lr-0.7 (lane 8; DRB1*06XX, lane 31; DQB1*06XX, lane 42; DQA*01XX)