

Supplementary table S3. Reconstructed haplotypes for the *TLR1*, -2, -4, -5 and -6 genes.

Haplotypes were reconstructed for the Czech Red Pied cattle population based on individual genotyping. Haplotype frequencies in the Czech Red Pied population are indicated. The haplotypes are numbered in alphabetical order.

Haplotype number	Order of SNPs ^a	Frequency (%)	Matching haplotypes in earlier works	
			White et al., 2003 ^b	Novák et al., 2017 ^c
TLR1				
1	C_A_C	10.70		
2	C_A_T	20.03		
3	C_G_C	1.01		
4	C_G_T	16.88		
5	T_A_C	10.46		
6	T_A_T	21.51		
7	T_G_C	0.74		
8	T_G_T	18.64		
TLR2				
1	C_A_C_G_A_A_G_C_T_G	0.40		
2	C_A_C_G_A_A_G_T_T_G	0.87		
3	C_A_C_T_A_G_A_C_C_A	0.53		
4	C_A_C_T_A_G_G_T_C_A	0.22		
5	C_A_C_T_A_G_G_T_C_G	0.82		
6	C_A_C_T_A_G_G_T_T_G	1.94		
7	C_A_T_G_A_G_G_T_T_G	0.57		
8	C_G_T_G_A_G_G_C_T_G	0.22		
9	C_G_T_G_A_G_G_T_T_G	0.40		
10	C_G_T_G_G_G_G_T_T_A	0.47		
11	C_G_T_G_G_G_G_T_T_G	2.14		
12	C_G_T_T_G_G_G_T_T_A	0.43		
13	T_A_C_G_A_A_G_T_T_G	0.36		
14	T_A_C_T_A_G_A_C_C_A	0.32		
15	T_A_C_T_A_G_G_T_T_G	0.30		
16	T_A_T_G_A_G_G_T_T_G	0.35		
17	T_G_T_G_A_A_G_T_T_G	0.80		
18	T_G_T_G_A_G_G_T_T_G	0.36		
19	T_G_T_G_G_A_G_T_T_G	1.86		
20	T_G_T_G_G_G_A_C_C_A	0.71		
21	T_G_T_G_G_G_A_C_C_G	2.60		
22	T_G_T_G_G_G_G_C_T_A	0.96		
23	T_G_T_G_G_G_G_C_T_G	4.86		
24	T_G_T_G_G_G_G_T_C_G	0.96		
25	T_G_T_G_G_G_G_T_T_A	9.95		
26	T_G_T_G_G_G_G_T_T_G	51.61		
27	T_G_T_T_A_G_G_T_T_A	0.23		
28	T_G_T_T_A_G_G_T_T_G	0.39		

29	T_G_T_T_G_A_G_T_T_G	2.02		
30	T_G_T_T_G_G_A_C_C_G	1.93		
31	T_G_T_T_G_G_G_C_T_A	0.38		
32	T_G_T_T_G_G_G_C_T_G	3.79		
33	T_G_T_T_G_G_G_T_T_A	1.14		
34	T_G_T_T_G_G_G_T_T_G	4.93		
TLR2 – proximal 6 SNPs				
1	C_A_C_G_A_A	0.70		
2	C_A_C_G_A_G	9.83		
3	C_A_T_G_A_A	0.71		
4	C_A_T_T_A_G	1.05		
5	C_G_T_T_G_G	0.98		
6	T_A_C_G_A_G	1.28		
7	T_G_T_G_A_A	2.19		
8	T_G_T_G_G_A	11.07		
9	T_G_T_G_G_G	9.79		
10	T_G_T_T_A_G	1.65		
11	T_G_T_T_G_A	6.76		
12	T_G_T_T_G_G	51.50		
TLR4				
1	C_C_A_A_G_T_T	1.72		
2	C_C_A_G_A_T_T	0.71		
3	C_C_A_G_G_C_G	0.90		
4	C_C_A_G_G_C_T	3.71		4
5	C_C_A_G_G_T_G	2.28		
6	C_C_A_G_G_T_T	13.89		
7	C_C_G_A_A_C_T	0.64		
8	C_C_G_A_A_T_G	1.56		
9	C_C_G_A_A_T_T	2.30	A5	8
10	C_C_G_G_A_C_G	0.95		5
11	C_C_G_G_A_C_T	5.17		6, 7
12	C_C_G_G_A_T_G	2.57		
13	C_C_G_G_A_T_T	12.05		
14	C_C_G_G_G_T_T	0.72		
15	C_T_G_G_A_C_T	1.27	A1, B1	
16	C_T_G_G_A_T_T	1.52		10
17	C_T_G_G_G_T_T	1.36		
18	G_C_A_A_G_C_T	0.94	A2	14
19	G_C_A_A_G_T_T	0.55		
20	G_C_A_G_A_C_T	2.52		11
21	G_C_A_G_A_T_G	0.83		
22	G_C_A_G_A_T_T	3.30		12
23	G_C_A_G_G_C_G	0.96		
24	G_C_A_G_G_C_T	7.96		
25	G_C_A_G_G_T_G	2.48		
26	G_C_A_G_G_T_T	14.83		
27	G_C_G_A_A_T_T	0.64		15
28	G_C_G_G_A_C_T	1.11	B1	7

29	G_C_G_G_A_T_T	3.19		
TLR5				
1	A_C_C_G_C_T_C_C_A	1.15		
2	A_C_C_G_T_T_C_C_A	1.93		
3	A_C_C_G_T_T_C_C_G	1.59		
4	A_C_C_T_C_T_C_C_A	6.76		
5	A_C_C_T_C_T_C_C_G	0.52		
6	A_C_C_T_C_T_T_C_A	1.44		
7	A_C_C_T_T_C_C_C_A	0.3		
8	A_C_C_T_T_C_C_C_G	0.32		
9	A_C_C_T_T_T_C_C_A	2.63		
10	A_C_C_T_T_T_C_C_G	0.4		
11	A_C_T_G_T_C_C_T_A	0.79		
12	A_C_T_T_C_C_C_C_A	3.23		
13	A_C_T_T_C_C_C_C_G	0.28		
14	A_C_T_T_C_C_C_T_A	4.19		
15	A_C_T_T_C_C_C_T_G	0.39		
16	A_C_T_T_C_C_T_C_A	1.14		
17	A_C_T_T_C_C_T_T_A	2.87		
18	A_C_T_T_C_T_C_C_A	0.46		
19	A_C_T_T_C_T_T_C_A	0.48		
20	A_C_T_T_T_C_C_C_A	0.83		
21	A_C_T_T_T_C_C_C_G	0.96		
22	A_C_T_T_T_T_C_C_A	0.5		
23	A_C_T_T_T_T_C_T_A	0.33		
24	A_C_T_T_T_T_T_C_A	0.91		
25	A_C_T_T_T_T_T_T_A	0.23		
26	A_G_C_G_C_T_C_C_A	0.96		
27	A_G_C_G_T_T_C_C_A	2.18		
28	A_G_C_G_T_T_C_C_G	0.44		
29	A_G_C_T_C_C_C_C_A	0.34		
30	A_G_C_T_C_C_C_T_A	0.31		
31	A_G_C_T_C_T_C_C_A	14.85		
32	A_G_C_T_C_T_C_C_G	0.85		
33	A_G_C_T_C_T_C_T_A	0.54		
34	A_G_C_T_T_C_C_C_A	0.44		
35	A_G_C_T_T_T_C_C_A	2.2		
36	A_G_C_T_T_T_C_C_G	0.35		
37	A_G_T_G_T_C_C_C_A	1.23		
38	A_G_T_G_T_C_C_T_A	0.86		
39	A_G_T_T_C_C_C_C_A	7.64		
40	A_G_T_T_C_C_C_C_G	1.25		
41	A_G_T_T_C_C_C_T_A	14.24		
42	A_G_T_T_C_C_C_T_G	1.45		
43	A_G_T_T_C_C_T_C_A	0.61		
44	A_G_T_T_C_C_T_T_A	0.8		
45	A_G_T_T_C_T_C_C_A	3.91		
46	A_G_T_T_C_T_C_C_G	0.27		

47	A_G_T_T_T_C_C_C_A	3.31		
48	A_G_T_T_T_C_C_C_G	2.53		
49	A_G_T_T_T_C_C_T_A	0.38		
50	A_G_T_T_T_C_C_T_G	0.31		
51	A_G_T_T_T_T_C_C_A	0.81		
52	G_G_C_G_T_T_C_C_A	0.29		
53	G_G_T_G_T_C_C_T_A	0.32		
54	G_G_T_T_C_C_C_T_A	1.24		
55	G_G_T_T_T_C_C_C_G	0.18		
<i>TLR6</i>				
1	A_C_A_C	5.53		
2	A_C_A_T	2.44		
3	A_C_G_C	3.07		
4	A_C_G_T	1.28		
5	A_G_A_C	2.90		
6	A_G_A_T	0.90		
7	A_G_G_C	3.27		
8	A_G_G_T	1.00		
9	G_C_A_C	36.45		
10	G_C_A_T	18.63		
11	G_C_G_C	7.83		
12	G_C_G_T	4.10		
13	G_G_A_C	4.28		
14	G_G_A_T	2.65		
15	G_G_G_C	3.20		
16	G_G_G_T	2.38		

^a The order of SNPs is:

798C>T, 1762G>A, and 2097T>C in *TLR1* according to the reference sequence FJ147090, 115T>C, 1009A>G, 1044T>C, 1047T>G, 1060G>A, 1313G>A, 2546G>A, 2565T>C, 2883T>C, and 3206G>A in *TLR2* according to the reference sequence EU746465, 245G>C, 610C>T, 5087A>G, 5134G>A, 7999A>G, 9422C>T, and 10310T>G in *TLR4* according to the reference sequence AC000135.1, 305A>G, 488C>G, 545C>T, 619T>G, 1736C>T, 3714T>C, 3891C>T, 4626C>T and 5144A>G in *TLR5* according to the reference sequence EU006635, 855G>A, 865G>C, 990G>A, and 1337T>C in *TLR6* according to the reference sequence AJ618974.

The individual SNPs are separated by underscores.

^b Haplotypes compared by overlapping SNPs 5087, 9422 and 10310 in *TLR4*.

^c Haplotypes compared by overlapping SNPs 245, 610, 5087, 7999, 9422 and 10310 in *TLR4*.