

**Supplementary Table 1.** Linkage Disequilibrium (LD) between polymorphisms (SNPs) of *PRNP* and *PRND* gene with  $r^2$  value in dogs.

<i>PRNP</i>	<i>PRND</i>			
	c.149G>A	c.447T>C	c.465C>T	c.556G>C
c.190in/del (codon 64)	0.071	0.0	0.0	0.071
c.198T>C (codon 66)	0.228	0.018	0.018	0.228
c.301A>G (codon 101)	0.282	0.008	0.008	0.282
c.372G>A (codon 124)	0.003	0.0	0.0	0.003
c.489C>G (codon 163)	0.205	0.001	0.001	0.205
c.545A>G (codon 182)	0.024	0.0	0.0	0.024
c.546C>A (codon 182)	0.002	0.0	0.0	0.002
c.729T>C (codon 243)	0.173	0.001	0.001	0.173

**Supplementary Table 2.** Linkage Disequilibrium (LD) between polymorphisms of *PRNP* and *PRND* gene with D' value in dogs.

<i>PRNP</i>	<i>PRND</i>			
	c.149G>A	c.447T>C	c.465C>T	c.556G>C
c.190in/del (codon 64)	1.0	1.0	1.0	1.0
c.198T>C (codon 66)	0.552	1.0	1.0	0.552
c.301A>G (codon 101)	0.916	1.0	1.0	0.916
c.372G>A (codon 124)	0.999	1.0	1.0	0.999
c.489C>G (codon 163)	0.695	1.0	1.0	0.695
c.545A>G (codon 182)	0.67	1.0	1.0	0.67
c.546C>A (codon 182)	1.0	1.0	1.0	1.0
c.729T>C (codon 243)	0.681	1.0	1.0	0.681