**SUPPLEMENTARY INFORMATION**

# Prediction of Genes Related to Positive Selection Using Whole-Genome Resequencing in Three Commercial Pig Breeds

**HyoYoung Kim[1], Kelsey Caetano-Anolles[2], Minseok Seo[3], Young-jun Kwon[3], Seoae Cho[4], Kangseok Seo[5]*, Heebal Kim[1,4,6]****

http://www.genominfo.org/src/sm/gni-13-137-s001.pdf

**Supplementary Table 1.** SNP effects on population-specific genes based on the XPEHH test

| Position | ID | Breed pair | Gene | Substitution | Y (5) | L (13) | D (6) | p-value |
|---|---|---|---|---|---|---|---|---|
| chr7:29165075 | rs325589496 | D_Y | *SLA-DQA1* | A16T | 4 | 8 | 0 | 0.01 |
| chr7:29165078 | rs338362601 | D_Y | *SLA-DQA1* | L17V | 5 | 11 | 3 | 0.08 |
| chr7:29168827 | rs337558998 | D_Y | *SLA-DQA1* | P44S | 0 | 3 | 0 | 0.40 |
| chr7:29168832 | rs342581558 | D_Y | *SLA-DQA1* | S45R | 2 | 0 | 0 | 0.55 |
| chr7:29168840 | rs325503848 | D_Y\|D_L | *SLA-DQA1* | Y48F | 3 | 6 | 0 | 0.04 |
| chr7:29168866 | rs320704256 | D_Y | *SLA-DQA1* | E57Q | 1 | 3 | 1 | 0.63 |
| chr7:29168885 | rs337773212 | D_Y\|D_L | *SLA-DQA1* | G63E | 4 | 7 | 4 | 0.60 |
| chr7:29168930 | rs80885156 | D_Y | *SLA-DQA1* | R78T | 1 | 2 | 4 | 0.04 |
| chr7:29168977 | rs323901313 | D_Y | *SLA-DQA1* | H94Y | 1 | 0 | 0 | 0.75 |
| chr7:29169503 | rs324509622 | D_Y | *SLA-DQA1* | P119S | 4 | 13 | 0 | 5.20e-05 |
| chr7:29169520 | rs80931851 | D_Y | *SLA-DQA1* | M124I | 4 | 13 | 0 | 5.20e-05 |
| chr7:29169558 | rs80937718 | D_Y | *SLA-DQA1* | N137S | 5 | 13 | 0 | 7.43e-06 |
| chr7:29169645 | rs80929898 | D_Y | *SLA-DQA1* | K166R | 1 | 0 | 0 | 0.75 |
| chr10:16021588 | rs81212101 | Y_L | *EPHX1* | T259I | 1 | 10 | 2 | 0.11 |
| chr10:16021616 | rs45430402 | Y_L | *EPHX1* | V250I | 1 | 8 | 2 | 0.21 |
| chr10:16022195 | rs81212099 | Y_L | *EPHX1* | S229A | 1 | 8 | 2 | 0.21 |
| chr10:16022270 | rs81212098 | Y_L | *EPHX1* | A204T | 1 | 6 | 1 | 0.44 |

SNP, single nucleotide polymorphism; XPEHH, cross-population extended haplotype homozygosity Y, Yorkshire; L, Landrace; D, Duroc.