

Description of Additional Supplementary Files

Supplementary Data 1. Data summary of the data of all samples.

Supplementary Data 2. The genes related to immune indicators in the Porcine Peripheral Blood Mononuclear Cells (PBMCs) group were calculated by the linear model.

Supplementary Data 3. The genes related to immune indicators in the Neutrophil (Neu) group were calculated by the linear model.

Supplementary Data 4. Identification results of molQTL in PBMC and Neu groups.

Supplementary Data 5. eQTLs and sQTLs with consistent effect directions shared between any two tissues.

Supplementary Data 6. PBMC- and neutrophil-specific eQTL-eGene pairs compared to other tissues.

Supplementary Data 7. Overlap between molQTLs in PBMCs and neutrophils and QTL regions for swine immune traits.

Supplementary Data 8. Colocalization analysis between swine PBMC and neutrophil molQTLs and GWAS signals for the phagocytic score.

Supplementary Data 9. Co-localized molQTLs in PBMCs and neutrophils that are associated with immune phenotypes.

Supplementary Data 10. qPCR results for different genotypes of rs330263631 (*TXNDC15*).