

Figure S1. Average daily feed intake statistics. LW and MS represent Large White pigs and Mashen pigs, respectively; 25 and 4 indicate 25°C and 4°C, respectively.

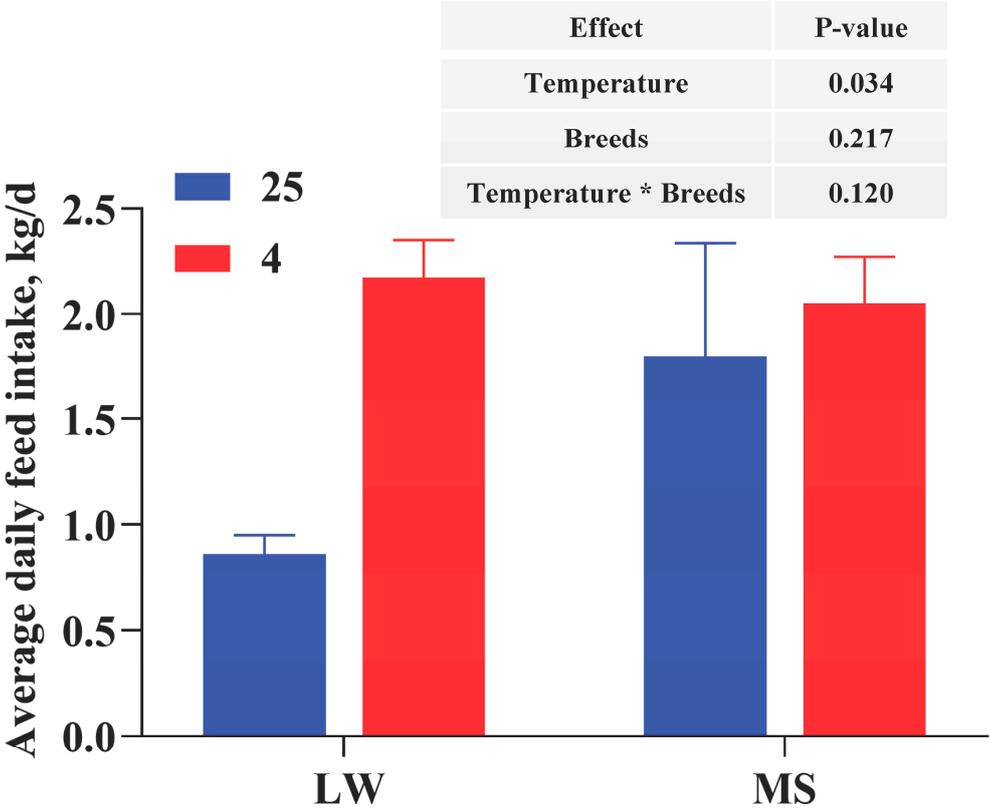


Figure S2. All DEGs in the transcriptome sequencing data in LW and MS pigs at 25°C and 4°C. **(A)** Cluster map of DEGs between LW-25 and MS-25 groups. **(B)** Cluster map of DEGs between LW-4 and MS-4 groups. **(C)** Cluster map of DEGs between LW-25 and LW-4 groups. **(D)** Cluster map of DEGs between MS-25 and MS-4 groups. **(E)** Volcanic map of DEGs between LW-25 and LW-4 groups. **(F)** Venn diagram of 4 groups. **(G)** The number of up-regulated and down-regulated between LW-25 and LW-4 groups. **(H)** The number of up-regulated and down-regulated between MS-25 and MS-4 groups. **(I)** GO enrichment analysis of specific DEGs between LW-25 and LW-4 groups. **(J)** KEGG pathway classification of specific DEGs between LW-25 and LW-4 groups. LW and MS represent Large White pigs and Mashen pigs, respectively; 25 and 4 indicate 25°C and 4°C, respectively.

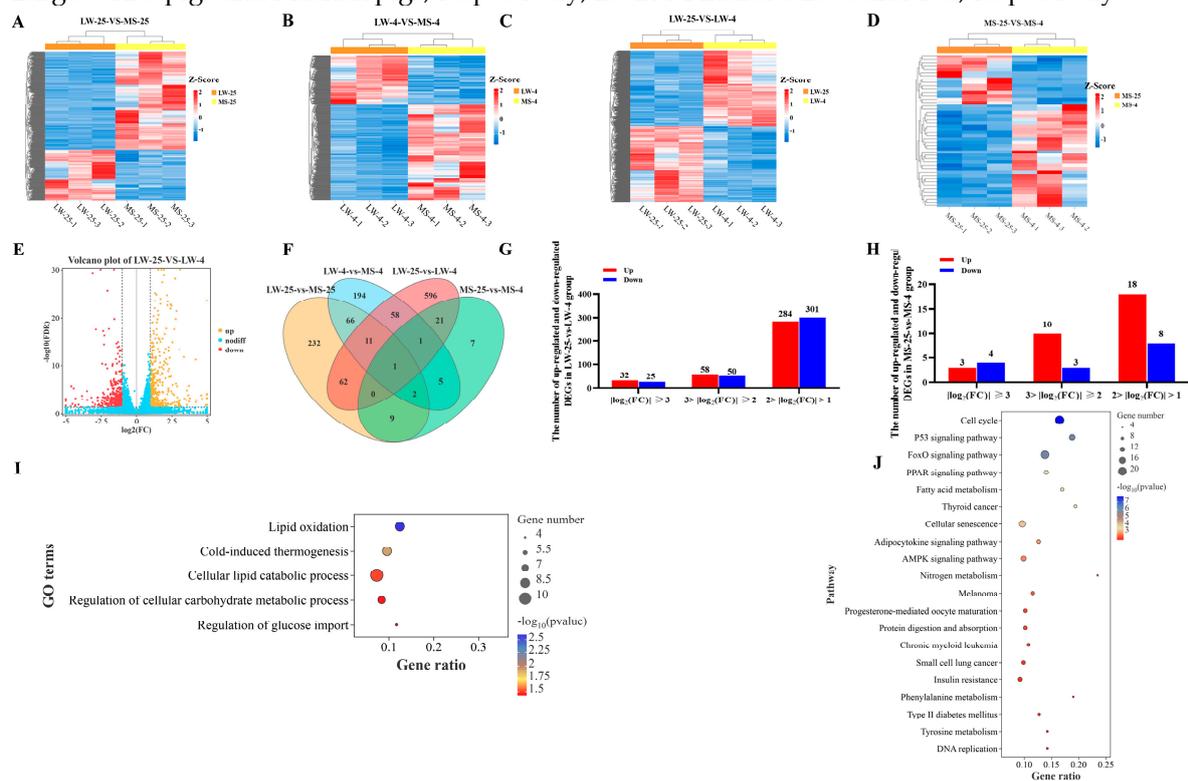


Figure S3. Weighted co-expression network analysis. **(A)** The results of soft threshold β calculation indicated a scale-free network linear model, with network connectivity corresponding to different soft thresholds. The blue line represents a correlation coefficient of 0.8, and the red line represents a correlation coefficient of 0.9. **(B)** Clustering of module eigengenes.

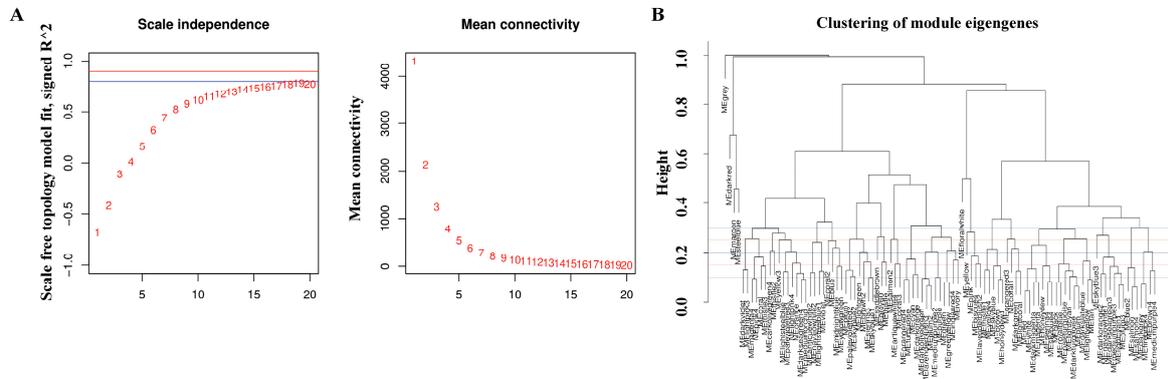


Figure S4. (A–K) qRT-PCR verification on thermogenesis and energy metabolism of longissimus dorsi in LW and MS pigs at 25°C and 4°C. LW and MS represent Large White pigs and Mashen pigs, respectively. ** $p < 0.01$ and * $p < 0.05$.

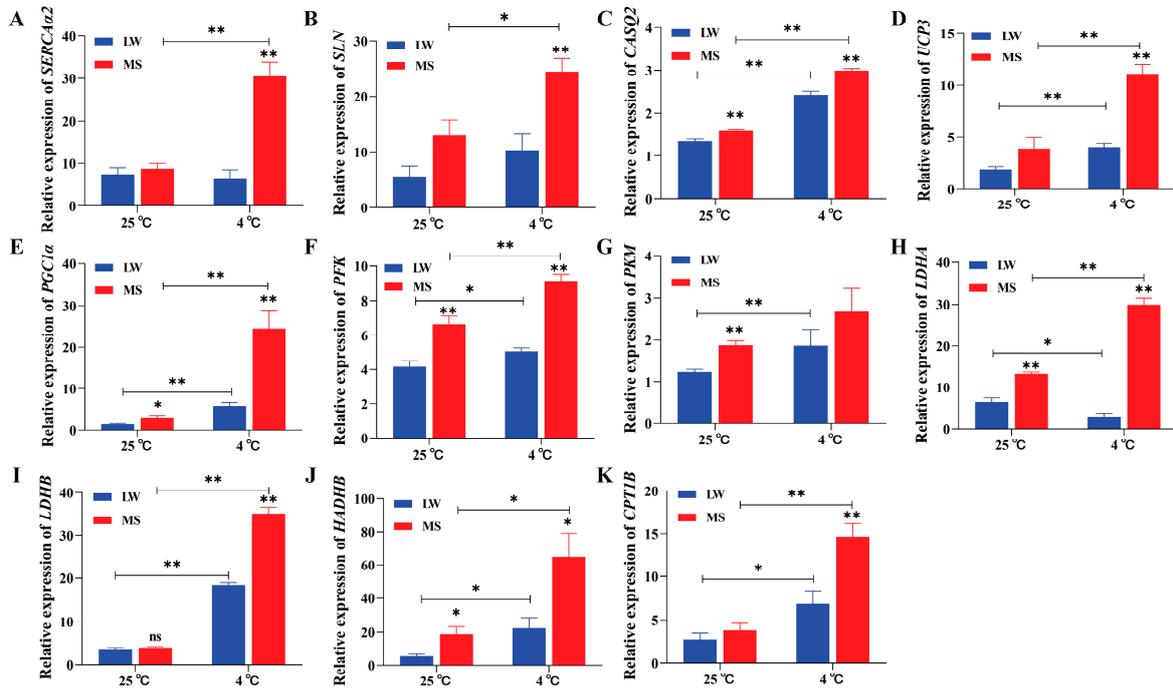
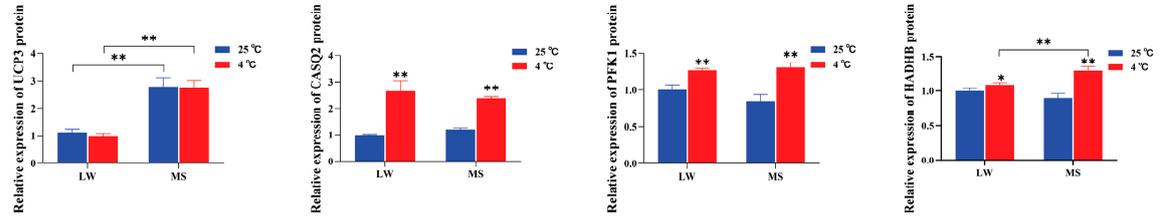


Figure S5. Protein statistical results. (A) Western blot statistical results of candidate genes in longissimus dorsi muscle tissues of LW and MS pigs at 25°C and 4°C. (B) Statistical results of heat production and energy metabolism related proteins in porcine skeletal muscle satellite cells interfered with PRSS8. LW and MS represent Large White pigs and Mashen pigs, respectively. ** $p < 0.01$ and * $p < 0.05$.

A



B

