

Growth rate and carcass quality in pigs as related to genotype at loci POU1F1/Rsal (Pit1/Rsal) and GHRH/AluI

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Abstarc :

The aim of the study was to determine the effect of pituitary transcription factor 1 (POU1F1, Pit1) and the polymorphism of growth hormone releasing hormone (GHRH) genes on selected pig performance traits. The animals used were the progeny of Polish Landrace × Polish Large White crossbred sows and Polish Landrace, Polish Large White, Duroc or Pietrain boars. Eighteen performance traits were recorded. The POU1F1 genotype was found to have a significant effect on mean daily live weight gain (g), ham-covering fat (kg), fat thickness over loin (cm), meat content of carcass (%) and meat content of ham (%), while the GHRH/AluI genotype was significantly associated with fat thickness over shoulder (cm) and meat content of carcass (%). The results presented show that the region of chromosome 13, covering the POU1F1-encoding gene, may contain quantitative traits loci (QTLs) for growth rate and carcass traits. The study supplied new information on the relation between the polymorphism of GHRH-encoding gene and pig performance.

Key Word :

carcass / gene polymorphism / POU1F1 / GHRH / pig

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