动物科学

撒坝猪MYOG基因MspI多态性及其与部分生长性状的关系

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摘要 肌细胞生成素(MYOG)基因的表达产物对肌细胞的分化和肌纤维的生成有着重要的调控作用。以MYOG基因作为撒坝猪生长性状的候选基因,在通过PCR-RFLPs技术对其MspI酶切位点多态性进行检测的基础上,对该基因不同基因型与5个阶段体重和日增重性状的关系进行了分析。结果表明,撒坝猪MYOG基因*MspI*酶切位点2个等位基因和3种基因型均有不同频率的分布,在经历多年的开放核心群选育后仍保持了较高的遗传多态性;MYOG基因的不同基因型对撒坝猪4月龄体重和45日龄~6月龄日增重有显著影响(P<0.05),以AB型最高,AA型最低。结合前人的相关研究结果,可初步推断,MYOG基因对猪的部分生长性状确有一定影响。

关键词 撒坝猪; 肌细胞生成素基因; 体重; 日增重

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The *MspI* Polymorphism of MYOG Gene and Its Relationship with Some Growth Traits in Saba Pig

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Abstract

The expression product of myogenin (MYOG) gene plays an important role in regulating muscle growth and differentiation of pigs. In this research, MYOG gene was chosen as a candidate gene for growth traits of Saba pigs. The MspI polymorphism of the gene was investigated by using PCR-RFLPs technique, and the relationship between the polymorphisms and 5 growth traits was analyzed. The results showed that 2 alleles and 3 genotypes of MYOG gene were detected in Saba pigs, which there was still a higher degree of polymorphisms on MYOG gene in the population, though it was selected by years of opening nucleus breeding. The two growth traits, 6 months body weights and average daily gains from 45 days to 6 months of 3 genotypes were significantly different (P <0.05). The traits of genotype AB were better than those of AA or BB. Combining with the previous results, it could be preliminarily deduced that MYOG gene probably had some associations with growth traits in pigs.

Key words saba pig myogenin gene body weight daily gain

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