

猪MyoG基因的PCR-RFLP多态性分析

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收稿日期 修回日期 网络版发布日期 接受日期

摘要 以杜洛克、长白、大约克、南昌白、二花脸、梅山猪、玉山黑猪、乐平花猪、金华两头乌及上高两头乌等中外10个猪种共计561头猪为研究材料,采用3对引物(PCR1、PCR2、PCR3)分别扩增猪肌细胞生成素(MyoG)基因的不同区域,扩增产物经限制性核酸内切酶Msp I酶切后发现:(1)在PCR1 Msp I-RFLP位点上,外来品种杜洛克、长白、大约克及培育品种南昌白中绝大多数个体表现为AA型,个别为BB型;而6个中国地方猪种除乐平花猪外均以BB型居多。(2)在PCR2 Msp I-RFLP位点上,6个中国地方猪种除一头玉山黑猪表现为MN型外,其余均为MM型;而外来品种以NN型占大多数,培育品种南昌白更趋向于外来品种。(3)在PCR3 Msp I-RFLP位点上,所有猪种均可得到扩增产物,但无Msp I酶切位点。(4)在梅山猪及与其亲缘关系较近的二花脸猪中,没有发现Soumillion等(1997)报道的梅山猪特异性Msp I多态性酶切位点。

关键词 [猪](#) [肌细胞生成素基因\(MyoG\)](#) [PCR-RFLP](#) [遗传多态性](#)

分类号

Polymorphism Analysis of Porcine Myogenin Gene by PCR-RFLP

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Abstract

The polymorphisms of porcine myogenin gene in 561 pigs including Duroc, Landrace, Large Yorkshire, Nanchang white pig, Erhualian, Meishan, Yushan black pig, Leping spotted pig, Jinhua black head-hind pig and Shanggao black head-hind pig were detected by PCR-RFLPs with three different pairs of primers, and the PCR products were digested by Msp I. The results showed that most of the Duroc, Landrace, Large Yorkshire, Nanchang white pigs presented as AA genotype, while more animals of the six Chinese local pig breeds except for Leping spotted pig presented as BB genotype at PCR1 Msp I-RFLP site. The six Chinese local breeds presented as MM genotype except that one Yushan black pig presented as MN genotype, while more swines of the exotic breeds including Duroc, Landrace, Large Yorkshire presented as NN genotype, and Nanchang white pig appeared to be closer to the exotic breeds at PCR2 Msp I-RFLP site. PCR product was obtained in all the swine by PCR3, but the Msp I restriction site was not found in the tested pig breeds including Meishan and blood closely related Erhualian pig.

Key words [pig](#) [myogenin gene](#) [PCR-RFLP](#) [genetic polymorphism](#)

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