

研究报告

MTNR1A基因对大白猪和长白猪产仔数的影响

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收稿日期 2005-10-12 修回日期 2005-12-30 网络版发布日期 2006-7-7 接受日期

摘要 根据MTNR1A基因在GenBank中的已知DNA序列设计了2对引物,采用PCR-SSCP技术在一个大白猪和长白猪群体中进行单核苷酸多态性(single nucleotide polymorphism, SNP)检测,发现了一个SNP位点,并对其不同基因型个体PCR回收产物进行测序。测序结果发现该SNP是由于在+159碱基处(GenBank中序列)发生了G→A的同义突变而引起的。并对该SNP与产仔数进行了关联分析,结果表明该SNP对产仔数有影响。

关键词 [猪,产仔数,MTNR1A,单核苷酸多态性](#)

分类号 [Q953](#)

Effects of MTNR1A gene on litter size in a Large White and a Landrace Herd

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Abstract

In this study, two pairs of primers were designed based on the known sequence for DNA in GenBank for amplification of genomic DNA in a Large White and a Landrace herd. The PCR products were detected by PCR-SSCP, we found that the products from the first pair of primer exist a SNP, and PCR products from randomly selected different genotypes were sequenced after were recalled and purified, the result disclosed that the single base mutation(G→A) occurred at +159bp(in terms of sequence situation in Genbank) for the BB genotype, which were a synonymous mutation. And analyzed association of this mutation with litter size traits, the results found that this mutation of MTNR1A gene had some affect on litter size traits.

Key words [Pig](#) [Litter size](#) [MTNR1A](#) [SNP](#)

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