

猪Mu阿片受体基因单核苷酸多态性分析 Single Nucleotide Polymorphism Analysis in Sow Mu Opioid Receptor Gene

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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 Mu阿片受体(简称MOR)属于G蛋白耦联受体,分布在痛觉传导区,以及与情绪和行为有关的区域,影响动物的神经反应和行为表现。该研究以长白猪、大白猪和杜洛克猪为试验材料,用8对引物对Mu阿片受体基因的5' UTR区域、整个编码区和3' UTR区域用PCR-SSCP方法进行了扫描,发现5处突变基因座(GenBank登录号:AF521309)。统计结果发现基因型频率分布与品种有关,大白猪突变基因型频率显著高于长白和杜洛克,本研究推测分布上的差异可能是由于长期的选择压力造成的。

Abstract: Mu opioid receptor (MOR) is a member of G protein-coupled receptor family, distributed in the pain transduction region in the brain and related to emotion and behaviour. This study was designed to investigate the Single Nucleotide Polymorphism (SNP) of Mu opioid receptor gene in various breeds, including duroc, landrace and Yorkshire. 5' UTR (untranslated region), coding region and 3' UTR of Mu opioid receptor gene were amplified by eight pairs of primers, and the Single Nucleotide Polymorphism (SNP) were detected by SSCP. Five polymorphisms were found (Genebank Accession number: AF521309). The results of χ^2 test showed that the frequencies of genotypes in different breeds were significantly different ($P < 0.01$). The frequencies of mutation genotypes in Yorkshire were significantly higher than Duroc and Landrace. According to the above results, we can speculate the difference of the frequencies of genotypes may be the results of long term choice pressure.

关键词 [猪](#) [Mu阿片受体基因](#) [单核苷酸多态性](#) **Key words** [pig](#) [Mu opioid receptor gene](#) [single nucleotide polymorphism](#)

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