

# 应用多重PCR和基因扫描技术对五指山猪13个家系32个微卫星基因座的遗传分析

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## 摘要

五指山猪是我国著名的珍稀畜种, 体型小、性成熟早、遗传稳定、近交程度高, 可用于医学、药学和生物材料等方面。作者利用多重PCR和基因扫描技术对五指山猪13个家系的32个微卫星基因座进行遗传检测。统计各家系的等位基因组成, 计算各家系的平均杂合度和多态信息含量(PIC); 结果, 各家系32基因座的平均等位基因数为13.66个, 平均PIC为0.731, 平均杂合度为0.559。表明海南五指山猪具有丰富的遗传多样性。这些结果对于海南五指山猪的保种、定向选育、开发利用都具有重要的指导意义。

关键词 [五指山猪; 微卫星; 基因扫描; 遗传多样性;](#)

分类号

## Genetic Analysis of 32 Microsatellite Loci in 13 Families of Wuzhishan Pig by Multiplex PCR and Gene scanning Technique

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### Abstract

Abstract: Wuzhishan pig is one of the rare and endangered breeds in china. They have the following characteristics such as : light body weight and small size , early sexually maturity, high meat quality and genetic identication with 6~8 pares litter size, body weight of born 0.3~0.4 kg, 15~16 kg at 6 month old, 35 kg at 2 years old, and so on. They may be used for laboratory utilization, comparative studies on human medical model, embryonic engineering, nutrition metabolism, sensitivity test on virus and bacteria, skin brut and tranfer, removing lipid, teeth and mouth cavity diseases, studies on cardiovascular model and evaluation of new medicine products. The polymorphisms of 32 microsatellites in 13 families of Wuzhishan pig in Hainan were Analysed. Number of alleles in each family was counted, Mean heterozygosity and polymorphism Information content (PIC) were calculated. The results showed that number of alleles was 13.66, Mean heterozygosity was 0.559 while polymorphism Information content was 0.731. This revealed that genetic diversity is abundant in Wuzhishan pig in Hainan. These results have instructional significance for preserving breeds, selection and breeding, development and utilization of Wuzhishan pig in Hainan. <BR><BR>

Key words [Key words: Wuzhishan pig; microsatellite; gene scanning; genetic diversity](#)

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