

研究报告

微卫星DNA在吉戎兔亲子鉴定中的应用研究

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摘要 选用Sat2、Sat3、Sat4、Sat5、Sat7、Sat8、Sat12、Sat13、Sat16、Sol08、Sol28、Sol30、Sol03 等13个微卫星位点PCR扩增30只吉戎兔的基因组DNA, 然后在8%聚丙烯酰胺凝胶上电泳分型, 检测结果为平均等位基因数为3.46个, 平均杂合度(H)为0.578, 平均多态信息含量(PIC)为0.531, 双亲资料未知时13个位点的累计非父排除率(PE1)为0.935226, 置信度低于80%, 一亲本资料已知时13个位点的累计非父排除率(PE2)为0.999329, 置信度为95%。由于所鉴定兔群的母本资料已知, 因此基因型的分型结果能有效确认18只仔兔子的真父。

关键词 [微卫星DNA](#); [吉戎兔](#); [亲子鉴定](#)

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Study on Parentage Testing in JIRONG Rabbit by Microsatellite Markers

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Abstract

Thirteen microsatellite markers, including Sat2, Sat3, Sat4, Sat5, Sat7, Sat8, Sat12, Sat13, Sat16, Sol08, Sol28, Sol30 and Sol03, were studied for their parentage-testing application in a group of 30 JIRONG Rabbits in the present report. The 13 microsatellite loci were successfully amplified with specific primers designed according to known sequences. The PCR products amplified from the microsatellite loci were analyzed by 8% denaturing polyacrylamide gel electrophoresis. The results demonstrated that the average alleles and the mean heterozygosity (Hs) and the polymorphism information content (PIC) and the combined exclusion probability (PE2) of the 13 microsatellite loci were 3.46, 0.578, 0.531, and 0.999329, respectively. The exclusion probability (PE1) of the 13 loci was 0.935226, and the confidence of the parentage testing was less than 80% when data of both parents were unknown, while the exclusion probability (PE1) and the confidence were 0.999329 and 95% respectively with known data of a single parent. Since the data of the rabbit maternal lines studied were known, the paternal lines of the group were successfully identified using the 13 microsatellite loci with high confidence.

Key words [microsatellite DNA](#); [parentage testing](#); [JIRONG Rabbit](#)

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