

研究报告

## 微卫星DNA监控大鼠近交系的培育

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**摘要** 采用微卫星DNA技术来监控大鼠仔代基因状况, 选择性地进行交配繁殖, 使基因快速纯合, 缩短培育新的近交系动物周期。利用PCR扩增30个微卫星DNA位点对封闭群SD和Wistar大鼠交配繁殖的仔代鼠进行微卫星DNA多态性分析, 仔代中与母代SD大鼠相似系数高的与中的进行定向交配繁殖。F2代大鼠均为杂合多态的位点, 没有纯合位点; 到F9代时基因纯合位点达27个, 纯合基因位点率为90%。每代相似系数具有不断上升的趋势, 上升率为6-20%。采用皮肤移植方法验证了F9代大鼠间无排斥。建立了一种新的快速培育近交系动物的方法。

**关键词**

[微卫星DNA](#); [大鼠](#); [封闭群](#); [近交系培育](#)

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## Inbred Cultivation of Microsatellite DNA Monitoring Outbred Rats

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### Abstract

It was monitored heredity gene of baby rats with microsatellites DNA. And selected to breed rats, make gene quickly identical, and it would shorten cultivated periods of a new inbred rats. It were analyzed DNA polymorphism in baby rats between outbred Wistar and SD rats with 30 microsatellites DNA loci of PCR amplification. And was breeding baby inbred rats using high and middle of Coefficient of similarity with female SD rats of F0. It was indicated that there were hybrid and polymorphism loci, there weren't homo-gene loci of F2. It were monomorphism homo-gene for 27, rate of homo-gene loci for 90%. It was unceasing risen for coefficient of similarity of every generation, rate of rising for 6-20%. And it was proved that it was not excluded between individual of F9 generation with skin transplantation method. It established a new method of quickly cultivation inbred rats.

**Key words** [Microsatellite DNA](#) [Outbred Rats](#) [Inbred Cultivation](#)

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