

研究报告

西门塔尔牛产奶性状的微卫星标记分析

方晓敏, 许尚忠, 张英汉, 徐宁迎

浙江大学动物科学学院, 杭州 310029

收稿日期 2004-4-6 修回日期 2004-9-7 网络版发布日期 接受日期

摘要 通过对西门塔尔牛育种核心群6个父系组成的150头母牛产奶性状的测定, 结合微卫星标记技术, 于4条染色体上选择12个微卫星位点进行产奶性状的微卫星标记分析, 研究各位点对乳脂、乳蛋白、乳糖、干物质和奶中体细胞数的遗传效应。结果表明: 12个位点都具有高度多态性, 杂合度(H)在0.64~0.86之间, 多态信息含量(PIC)也达到0.60以上, 最高者ILST093的多态信息含量为0.85; 位点ILST093对奶中体细胞数有显著性影响(P<0.05), 位点BMS711对乳脂率有显著性影响(P<0.05), 位点BM1905与奶中乳糖含量呈显著相关(P<0.05), 位点BM6438与五个产奶性状均无相关性。

关键词 [西门塔尔牛](#) [产奶性状](#) [分子标记](#) [微卫星DNA](#)

分类号 [S823.2](#)

Analysis of microsatellite markers with the milk product traits in Simmental

Xiaomin Fang,,,

College of Animal Science, Zhejiang University, Hangzhou 310029, China

Abstract

12 microsatellite markers from 4 chromosomes were chosen to analyze the effect on 5 milk production traits (including fat, lactoprotein, lactose, dry matter content and somatic cell number) of 150 cows from a 6-male-line Simmental breeding core group. Results showed that the 12 microsatellite markers were highly polymorphic and their PIC (polymorphism information contents) were over 0.60, and the marker with the highest PIC (0.85) was ILST093. The heterozygosities were among 0.64 and 0.86. Effects of 12 microsatellite loci on milk production traits were analyzed. Results showed that ILST093 had a significant effect on somatic cell number (P<0.05). Effects of BMS711 on fat ratio and of BMS1905 on lactose both reached a significant level (P<0.05), BM6438 on milk production traits had no significant effect.

Key words [Simmental](#) [Milk production trains](#) [Molecular marker](#) [Microsatellite DNA](#)

DOI:

通讯作者 方晓敏 fxmw2000@yahoo.com.cn

扩展功能

本文信息

- ▶ [Supporting info](#)
- ▶ [PDF\(0KB\)](#)
- ▶ [\[HTML全文\]\(0KB\)](#)
- ▶ [参考文献](#)

服务与反馈

- ▶ [把本文推荐给朋友](#)
- ▶ [加入我的书架](#)
- ▶ [加入引用管理器](#)
- ▶ [复制索引](#)
- ▶ [Email Alert](#)
- ▶ [文章反馈](#)
- ▶ [浏览反馈信息](#)

相关信息

- ▶ [本刊中 包含“西门塔尔牛”的相关文章](#)
- ▶ [本文作者相关文章](#)

- [方晓敏](#)
- [许尚忠](#)
- [张英汉](#)
- [徐宁迎](#)