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摘要: 大豆胞囊线虫病是世界大豆产区危害最重的病害之一。本文以高抗大豆胞囊线虫3号生理小种的黑豆品种小粒黑豆为父本，以高感大豆胞囊线虫3号生理小种的品种辽豆10号为母本配制杂交组合。利用分离群体分组分析法（BSA）对辽豆10号×小粒黑豆杂交组合的F_2代大豆材料的基因组DNA进行了SSR分析，供试的204对SSR引物有15对具有多态性，从中筛选到一个与大豆胞囊线虫抗性基因相关的分子标记Satt187，其片段大小为172 bp和176 bp，为共显性标记，在F_2代分离群体中的分离比为1:2:1，呈孟德尔式遗传。应用该标记对辽豆10×小粒黑豆F_2代分离群体进行分子标记鉴定和辅助选择，在抗病单株中均检测到标记带Satt187-176 bp的存在，而在感病单株中检测到有Satt187-176 bp和Satt187-172 bp两种标记带或仅有Satt187-172 bp的标记带存在，分析表明该标记具有抗胞囊线虫分子标记辅助选择应用的前景。

Abstract: Soybean cyst nematode is one of the most serious diseases in the world soybean areas. The cross combination was made by the resistant soybean cultivar Xiaoliheidou as male parent and the susceptible Liaodou 10 as female parent. In the F_2population the resistance was identified to Heterodera glycines Race 3 for every plant and separated the DNA from each plant. F_2populations of Liaodou 10×Xiaoliheidou were analyzed with 204 pairs of SSR. There were 15 pairs of SSR primer with polymorphism. A 172 bp or a 176 bp SSR band was obtained which correlated with resistant gene to Heterodera glycines race 3 by primer Satt187 for the populations. They were codominance markers. The ratio of separation between F_2population was 1:2:1. Satt187 was applied to identify and select F_2population of Liaodou 10 and Xiaoliheidou. Satt187-176 bp appeared in resistant plants, and Satt187-176 bp and Satt187-172 bp could be both tested in susceptible plants, which indicated this marker was good for breeding in molecular markers.

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