

## 用新的分子标记方法(RAPD)分析小麦抗白粉病基因Pm4a的近等基因系

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**摘要** RAPD是一种新发展的分子标记技术, 本实验利用这种技术对小麦抗白粉病基因Pm4a的近等基因系进行分析。在100个随机引物中找到了3个引物在这对抗白粉病的近等基因系中所扩增出的带型出现差异。并根据理论计算所找到的差异与抗性基因Pm4a连锁的概率是0.7, 即3个差异中应有2个标记与抗性基因连锁。

**关键词** [RSPD](#) [小麦白粉病](#) [分子标记](#)

分类号

## Tagging the Pm4a Gene in NILs by RAPD Analysis

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### Abstract

The powdery mildew resistant gene(Pm4a) is an important source in wheat breeding. In order to tag the gene, the recently developed RAPD technique was utilized to identify molecular markers linked to Pm4a using NILs(near-isogenic lines). 100 primers were screened by RAPD analysis, three of them amplified polymorphic DNA products. By theoretical calculation, the frequency of polymorphism between the pair of NILs obtained after 7 generals backcrosses should be 4.5 polymorphic DNA fragments every 100 primers(in practice we got three). Two of the three obtained polymorphic fragments should be linked to Pm4a gene. The results are consistent with that obtained.

**Key words** [RAPD](#) [Powdery mildew](#) [Molecular marker](#)

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