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# 银杏观赏品种遗传关系的AFLP分析

王利1，邢世岩1，杨克强1，王正华2，郭彦彦1，束怀瑞1

1. 山东农业大学园艺科学与工程学院，泰安 271018；
2. 山东药乡林场，泰安 271000

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摘要

从64对EcoRⅠ/MseⅠ引物（其中MseⅠ引物为荧光标记物）中筛选出8对扩增产物多态性高、谱带清晰的引物，对来自美国、荷兰、日本、法国和我国的21个银杏观赏品种的遗传关系进行了研究。结果表明：8对引物共产生1 117条谱带， 229个特异位点（其中缺失带54条、单态带175条），多态带983条，多态带的比例为88%；每对引物鉴别效率为100%。14个国外银杏观赏品种平均多态带的比例35.86%，7个国内品种平均多态带的比例31.51%。21个观赏品种之间相似系数为0.4899～0.8499。当相似系数为0.7300时，供试观赏品种可分为四类，来源地相同的品种并不单独聚成一类，中国和法国的品种分别属于其中的三类。根据对观赏品种的特异位点、相似系数、聚类结果等进行综合分析表明，‘塔形银杏’、‘垂乳银杏’、‘筒叶银杏’、‘大耳银杏’、‘斑叶银杏’、‘展冠银杏’、‘垂枝银杏’、‘沂源叶籽银杏’ 这8个品种是银杏观赏品种中的重要特异种质。

关键词 银杏；观赏品种；遗传关系；AFLP

分类号



# Genetic Relationships of Ornamental Cultivars of Ginkgo biloba Analyzed by AFLP Techniques

WANG Li1, XING Shi-Yan1, YANG Ke-Qiang1, WANG Zheng-Hua2, GUO Yan-Yan1, SHU Huai-Rui1

1. College of Horticulture Science and Engineering, Shandong Agricultural University, Taian 271018, China;
2. Shandong Yaoxiang Forestry Centre, Taian 271000, China

**Abstract**

<P>Eight primer combinations that produced clear and a large number of polymorphic bands were screened from 64 EcoRⅠ/MseⅠ primer combinations (MseⅠfluorescent labeled). The genetic relationships of 21 ornamental cultivars of Ginkgo biloba L. from the United States of America, Holland, Japan, France, and China were analyzed. These primer combinations produced a total of 1 119 bands, 229 specific loci (including 54 absent bands, and 175 monomorphic bands). Among them, 983 polymorphic bands (PPB), accounting for 88%, were detected. The percentage of identification per primer combination was as high as 100%. The average PPB of 14 foreign cultivars was 35.86% and the average PPB of seven domestic cultivars was 31.51%. Genetic similarity coefficient (SC) among all cultivars varied from 0.4899 to 0.8499, and all cultivars were divided into the four clusters when SC was set at 0.7300. The cultivars from the same origin did not fall into the same group. The cultivars from France and China were classified into three groups. According to the comprehensive analyses based on specific loci, similarity coefficient, and clustering results, eight cultivars ‘Fastigiata’, ‘Tit’, ‘Tubifolia’, ‘Daeryinxing’, ‘Variegata’, ‘Horizontalis, ‘Pendula’, and ‘Yiyuanyeziyinxing’ were considered to be important germplasms of ornamental cultivars of Ginkgo biloba.</P>

**Key words** Ginkgo biloba；ornamental cultivars；genetic relationship；AFLP

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通讯作者　邢世岩，束怀瑞 xingsy@sdau.edu.cn