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论文

野生人参RAPD指纹的研究

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摘要：

目的：分析山参遗传多样性及其遗传特性。方法：用随机扩增多态DNA(RAPD)标记方法对7个来源地不同的山参和1个园参样品进行遗传多样性检测和遗传分析。结果和结论：用14个10-mer寡聚核苷酸引物共检测111个位点，其中多态位点76个，占67.6%，远大于园参内的遗传变异，因此山参在人参育种上有很大利用价值。聚类分析表明，山参之间及其与园参之间的遗传变异，没有超出与近缘种西洋参之间的遗传差异；遗传因素在人参形态变异上的作用小于环境因素，这一结果为“山参”的培育提供了理论依据。

关键词： 野生人参；RAPD；遗传多样性；遗传距离

A STUDY ON RAPD FINGERPRINTINGS OF WILD MOUNTAIN GINSENG (*PANAX GINSENG*)

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Abstract:

AIM: To analyse the genetic characteristics of wild ginseng. METHODS: The genetic diversity level of wild ginseng (*Panax ginseng* C.A.Meyer) was confirmed by random amplified polymorphic DNA (RAPD) markers. Seven wild ginsengs, collected from different sites, with one garden ginseng were used in the study. RESULTS and CONCLUSION: From the fourteen 10-mer oligonucleotide primers 111 sites were detected, of which 76 (67.6%) were polymorghic. The level of genetic variation in wild ginseng was much higher than that in garden ginseng. Therefore, wild ginseng was a very precious material in breeding. According to the pairwise distances of all samples, one conclusion could be drawn that the evironment factor plays more important role than genetic factor in morphological change of wild ginseng which offers an evidence that even garden ginseng seed can develop to wild ginseng if it is planted in the mountains. Cluster analysis showed that the genetic variations among *P.ginsengs* were smaller than that between *P.ginsengs* and *P.quinquefolius*.

Keywords: random amplified polymorphic DNA (RAPD) genetic diversity wild ginseng

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