

### 木薯基因组SSR和EST-SSR在麻疯树和橡胶树中的通用性分析

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### Transferability Analysis of Cassava EST-SSR and Genomic-SSR Markers in Jatropha and Rubber Tree

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摘要

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**摘要** 利用木薯的419对EST-SSR引物和182对基因组SSR引物在5个麻疯树品系和2个橡胶树品系中进行通用性分析。结果显示,木薯EST-SSR在麻疯树和橡胶树中的通用性比例分别为55.85%和38.90%,而木薯基因组SSR在麻疯树和橡胶树中的通用性比例分别为37.36%和26.37%。由此推测,EST-SSR的通用性高于基因组SSR。此外,木薯EST-SSR和基因组SSR的通用性在麻疯树中高于在橡胶树中。本研究发掘的通用性SSR引物可以用于木薯、麻疯树和橡胶树间的比较作图、基因发掘和QTL定位研究。

**关键词:** 麻疯树 橡胶树 通用性 EST-SSR 基因组SSR

**Abstract:** Euphorbiaceae family includes abundant economic species, such as rubber tree, cassava, castor bean and Jatropha. Cassava (*Manihot esculenta* Crantz) ranks in the sixth food crop in the world. In China, cassava is also an important tropical economic crop. The genomic-SSRs derived from cassava genome, and EST-SSRs derived from expressed sequence tags (ESTs). In this study, the transferability of 419 pairs of EST-SSR primer and 182 pairs of genomic-SSR primer from cassava was tested in five Jatropha lines and two rubber tree lines. The result showed that the transferability rate of cassava EST-SSR in Jatropha and rubber tree was 55.85% and 38.90%, and the transferability rate of cassava genomic-SSR in Jatropha and rubber tree was 37.36% and 26.37%, respectively. The transferability EST-SSR was higher for cassava than for genomic-SSR. Meanwhile, the transferability of cassava EST-SSR and genomic-SSR was higher in Jatropha than in rubber tree. These results suggested that the cassava SSR can be used for comparative mapping, gene tagging and QTL mapping among cassava, Jatropha and rubber tree.

**Keywords:** Jatropha Rubber tree Transferability EST-SSR Genomic-SSR

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