



## SCAR marker for sex identification of *Pistacia chinensis* Bunge (Anacardiaceae)

Q. Sun, X. Yang and R. Li

Department of Biology, Qingdao University, Qingdao, China

Corresponding author: R. Li

E-mail: lrg@qdu.edu.cn

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**ABSTRACT.** *Pistacia chinensis* Bunge is a dioecious plant that originated in China, and its sex cannot be identified at the early stage of cultivation by only its appearance. Recent studies show that the seed of *P. chinensis* is an ideal feedstock for biofuel production. To guide the cultivation of this energy plant scientifically, a new method is urgently needed to identify the sex of *P. chinensis* seedlings. In this paper, from 21 random-amplified polymorphic DNA primers and 20 inter-simple sequence repeat primers, 2 sex-specific primers (S1 and S281) were identified that can amplify female-specific fragments of 473 and 1242 bp, respectively. However, only 1 fragment (FS281) was converted successfully into a sequence-characterized amplified region marker using S281-1 and S281-2 primers. When the annealing temperature was 64°C, a 636-bp specific sequence appeared in all female specimens but was absent in all the male samples tested. This study will offer some clues to sex selection in *P. chinensis* plantations.

**Key words:** Sex determination; Random-amplified polymorphic DNA; Inter-simple sequence repeat; Sequence-characterized amplified region; *Pistacia chinensis*