Differentiation of genuines and counterfeits of cordyceps species using random amplified polymorphic DNA

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摘要

Abstract

For identification of genuine and counterfeit samples of Cordyceps sinensis, an RAPD (random amplified polymorphic DNA) analysis was performed. In the study, twelve samples were collected, of which six were genuine and six were counterfeit samples. Genuine samples of Cordyceps sinensis contain two parasitic larvae produced from each of the three provinces, Sichuan (SC), Chinghai (CH), and Tibet (TB). The counterfeits contain two products of each of the three species, Cordyceps hawkesii, Stachys geobombycis, and Stachys sieboldii. In the RAPD analysis, twenty arbitrary decamer primers were screened to obtain primers appropriate for differentiating the genuine and counterfeit samples. The result of twelve RAPD markers generated from four primers, OPT-08, OPT-12, OPT-13, and OPT-17, were selected. The primers can easily distinguish between genuine and counterfeit samples of Cordyceps sinensis