以逢機擴增多型性 DNA 分析市售枸杞藥材之遺傳變異

RAPD analysis of Lycium barbarum Medicine in Taiwan Market

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摘要

本研究以逢要擴增多型性 DNA(RAPD)技術,分析二十家中藥店市售枸杞藥材之遺傳變異。以六十條含十個逢機排列之核苷酸的引子,進行 RAPD 分析的結果顯示,有四條引子的反應產物,可將樣品呈現不同之電泳圖譜。此四條引子分別爲 OPD-15,OPG-15,OPT-12 和 OPT-17。其結果均一致,在二十個市售樣品中,有十五家爲第一型,另五家爲第二型。該研究顯示,市售枸杞藥材的遺傳變異低,推測這些藥材可能來自兩個不同的來源,或根本爲兩個不同的種,若有標準品,即可進一步證實。

Abstract

In this study, we investigated Lyciurn barbarum, a Chinese medicine sold on the Taiwan market, using RAPD analysis. Sixty oligonucleotide primers were used to screen twenty randomly selected samples in the analysis. Total DNA extracted from the fruit of the medicine material was used as template in the PCR reaction. Four primers: OPD-15, OPG-15, OPT-12 and OPT-17, showed distinct polymorphic patterns, but others exhibited profiles nearly identical to the other samples used in the study. We found that only two RAPD fingerprinting types of these primers were outlined from twenty collected Lycium samples. Fifteen samples showed the first type of profiles while only five samples resulted of the second type. A low genetic diversity among the Lycium barbarum samples was revealed by RAPD analysis.