High Performance Liquid Chromatographic Analysis for the Characterization of Triterpenoids from Ganoderma

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Abstract

A high-performance liquid chromatographic (HPLC) analysis of triterpenoids from Ganoderma is developed and validated in an attempt to explore a way to differentiate a number of species of the genus Ganoderma. Results show that 64 samples examined in this study could be divided into 18 groups based on characteristics of the HPLC pattern of triterpenoids. This result also conforms with those of the morphological examination and the interfertility test by di-monokaryotic mating. The HPLC analysis of triterpenoids further reveals that differentiation among samples from three different regions each of the two species G. lucidum and G. tsugae is workable. Even then, an incorrect designation is found for two of the groups of samples that were originally classified as G. resinaceum but showed different morphological characteristics and mating incompatibility. In conclusion, an HPLC analysis of triterpenoids is a simple and easy way to differentiate among different species of the genus Ganoderma.