

Establish of Nested PCR-DNA Sequencing Method for the Identification of *Scutellariae Radix* and Its Chinese Medicine Preparations

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ABSTRACT

Scutellariae Radix, the dried root of *Scutellaria baicalensis* Georgi, is widely used in Chinese medicine preparations. Due to various growth environments, *Scutellariae Radix* is difficult to authenticate by its externals. In this study, a nested polymerase chain reaction (nested PCR) followed by DNA sequencing method was developed and employed to identify the authentic *Scutellariae Radix* and to detect its presence in Chinese medicine preparations. Using the sequence of the internal transcribed spacer (ITS) obtained from GenBank, we designed the primer sets for nested PCR to amplify the ITS fragments of samples. The revealed sequences were compared with GenBank databases. Fifty eight out of 69 raw material samples tested were identified as *S. baicalensis*, while 11 samples had sequences with one more base than that of *S. baicalensis*. Authentic *Scutellariae Radix* in 46 preparation samples of 24 formulas could be identified specifically by the established nested PCR-DNA sequencing methods.

Key words: *Scutellariae Radix*, ITS, nested PCR, DNA sequencing