

# **Phylogenetic Relationships of Cordyceps Species Revealed by ITS Sequences of Ribosomal DNA**

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摘要.

## **Abstract**

The internal transcribed spacer (ITS) regions of seven *Cordyceps* species and two species belonging to the same family of Clavicipitaceae, *Phytocordyceps ninchukispora* and *Claviceps purpurea*, were analyzed by polymerase chain reaction amplification and direct DNA sequencing. Phylogenetic relationship trees based on the sequences of ITS-I and ITS-II were constructed. The sequence similarities of the two regions of *C. sinensis* between the fresh samples collected from Tibet and the dried specimens from Chinese herb stores in Taiwan were 99.5% and 99.7%, respectively. However, the sequences were compared with those of *C. sinensis* collected from the CCRC (Culture Collection and Research Center). The similarities of ITS-I and ITS-II were only 71.2% and 81.5%, respectively. Equivalent sequencing results were obtained no matter whether the genomic DNA was extracted from the tissues of *C. sinensis*, its stroma, or the host of the fungus.