Identification the Authenticity of Viticis Simplicifoliæ Fructus
by Pharmacognosy and Determination the Content of Casticin by HPLC

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ABSTRACT

The botanical origin of Viticis Simplicifoliæ Fructus is the mature and dried fruit of Vitex trifolia L. var. simplicifolia Cham. and Vitex trifolia L. The quantitation and regulation of the index ingredient have not been established in the China Chinese Medicine Pharmacopeia. In this study, 52 samples were purchased from Taiwan market, which were compared to authentic materials by morphology, microscopy and thin layer chromatography. The results showed that all of 52 samples (100%) were Viticis Simplicifoliæ Fructus.

The amount of the index ingredient, casticin, in crude drugs was determined by high performance liquid chromatography. Samples were analyzed over a Cosmosil 5C₁₈ AR II reversed phase column (5 μm) using isocratic elution with acetonitrile and 0.1% phosphoric acid solution (60:40) and monitored at 258 nm absorbance. Regression equations revealed a linear relationship \( r^2 = 0.9999 \) between the peak-area ratios of casticin to internal standard and the amount of casticin in crude drugs. The contents of casticin in 52 samples of Viticis Simplicifoliæ Fructus were 0.003-0.071% with a mean content of 0.015%.

Key words: Viticis Simplicifoliæ Fructus, casticin, HPLC, pharmacognosy