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Validation of Analysis Methods of Decursin and Decursin angelate from *Angelicae gigantis Radix* by Reversed-phase Liquid Chromatography

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The determination method of decursin and decursin angelate from *Angelicae gigantis Radix*, an important crude drug in oriental medicine, was developed and validated by a reverse-phase liquid chromatography. The decursin and decursin angelate, the structural isomer as pyranocoumarin each other, are the main organic constituents in *Angelicae gigantis Radix*. In this study, the method was developed using a RP-18 column, UV detector at 280 nm and 50 % acetonitril solution containing 0.01 M sodium dodecyl sulfate and 25 mM Sodium dihydrogen phosphate (pH 5.0) as the mobile phase. The procedure was validated by linearity (correlation coefficient = 0.9996, 0.9994), accuracy, robustness and intermediate precision. Also the method was applied to circulated *Angelicae gigantis Radix* in the herbal markets and concentration of decursin and decursin angelate of circulated samples were monitored with this method.

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Anti-oxidant activities of the extracts from the herbs of *Artemisia apiacea*

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The anti-oxidant activities of the various fractions from the herbs of *Artemisia apiacea* were investigated. The n-hexane and n-butanol fractions were found to cause significant free radical scavenging effects on DPPH, their scavenging potencies as indicated in IC50 values, being 230.1 and 183.7 mg/ml, respectively. The n-butanol fraction exhibited a significant decrease in serum transaminase activities elevated by hepatic damage induced by CCl4-intoxication in rats. All fractions tested exhibited a lipid peroxidation causing a significant decrease in MDA production in TBA-reactant assay. The n-butanol fraction was the strongest in the increase in the anti-oxidant enzymes such as hepatic cytosolic superoxide dismutase (SOD), catalase and glutathione peroxidase (GSH-px) activities in CCl4-intoxicated rats. These results suggest that the herbs of *A. apiacea* possess not only the anti-oxidant, but also the activities in CCl4-intoxicated rats. Especially, the n-butanol extract was found to cause significant increases in the rat liver cytosolic SOD, catalase, GSH-px activities as well as a significant decrease in the MDA production.

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Profiling Analysis of Sphingolipids in HL-60 Cells by High-Performance Liquid Chromatography-Tandem Mass Spectrometry in combination with Multiple Reaction Monitoring

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