

**Extraction of Asiaticoside from centella asiatica :
Effects of solvents and extraction methods**

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Effects of solvent types and extraction methods (conventional liquid stirring extraction, soxhlet extraction, supercritical carbon dioxide extraction) were investigated for effective extraction of bioactive Asiaticoside from centella asiatica. Various organic and aqueous solvent were screened by stirring and soxhlet method. Compare to water and ethanol, the extraction with methanol is more effective in the extraction of asiaticoside from centella asiatica with about 8.19mg /g by conventional liquid stirring extraction. However, methanol is toxic and not concern as GRAS(Generally Regarded as safe : FDA) solvent. The soxhlet extraction showed that asiaticoside extraction reached a maximum value 11.78 mg/g at 65 % (v/v) ethanol in water. This result indicates that asiaticoside is soluble in polar solvents namely aqueous ethanol and asiaticoside is hydrophilic or water-soluble. The solvent extraction by Soxhlet is the best method for asiaticoside extraction. SCCO₂ extraction (supercritical carbon dioxide) with the addition of ethanol-water cosolvent is superior in terms of low liquid solvent consumption.