

Effect of solvent extraction on phytochemical component and antioxidant activity of vine and rhizome ampelocissus martini

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Abstrak

ABSTRAK

Som Kung, locally known as wild grape, belongs to the Vitaceae family and its scientific name is *Ampelocissus martini*. Its leaf, root and bark are used in traditional Thai medicine for providing relief of symptoms. In this work we studied the phytochemical and antioxidant activities of the hexane, ethyl acetate and methanol crude extracts of vines and rhizomes of *Ampelocissus martini*. Qualitative analysis of the phytochemical screening of the various extracts revealed the presence of terpenoid, flavonoid, saponin, phenolic acid and alkaloid. Total phenolic and flavonoid contents were investigated by using Folin-Ciocalteu and colorimetric aluminum chloride assays, respectively. The results showed that the methanolic extract of vines and rhizomes gave significantly higher total phenolic and flavonoid contents than the ethyl acetate and hexane extracts. In addition, the methanolic and ethyl acetate extracts of both parts had higher antioxidant activities than their hexane extracts. Positive correlation coefficients were observed ($r = 0.987$) between total phenolic and flavonoid contents and also ($r = 0.998$) between DPPH and ABTS. The present study provides evidence that solvent extracts of *A. martini* contain important bioactive compounds, especially the methanol extract, which produced a number of phytochemical compounds. Further study will isolate and identify the active compounds of vines and rhizomes from this solvent.