

Identification and bioactivity studies of flavonoid compounds from *Macaranga hispida* (Blume) Mull.Arg

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Abstrak

Two flavonoid compounds, 5,7,3',4'-tetrahydroxy-6-geranylflavonol (1) and kaempferol 7-O-glucose (2) have been isolated from the leaves of *Macaranga hispida* (Blume), Mull.Arg. Isolation and purification were conducted by chromatography methods and chemical structure characterization was carried out by spectroscopic methods. The 5,7,3',4'-tetrahydroxy-6-geranyl flavonol (1) and kaempferol 7-O-glucose (2) had moderate cytotoxic activity against murine leukemia P-388 cell lines with IC₅₀ value of 0.22 and 101.5 µg/mL, respectively. The IC₅₀ for antioxidant activities of (1) and (2) were 2.83 and 13.95 µg/mL, respectively. The LC₅₀ of (1) and (2) from BSLT were 350 and >1000 µg/mL, respectively.

Identifikasi dan Studi Bioaktivitas Senyawa Flavonoid dari *Macaranga hispida* (Blume) Mull.Arg. Dua senyawa flavonoid, 5,7,3',4'-tetrahidroksi-6-geranilflavonol (1) dan kaempferol 7-O-glukosa (2) telah diisolasi dari daun *Macaranga hispida* (Blume) Mull. Arg. Isolasi dan pemurnian dilakukan dengan metode kromatografi dan karakterisasi struktur kimia dilakukan dengan metode spektroskopi. 5,7,3', 4'-tetrahidroksi-6-geranil flavonol (1) kaempferol 7-Oglukosa (2) memiliki aktivitas sitotoksik sel murine leukemia P-388 dengan nilai IC₅₀ masing-masing 0,22 dan 101,5 µg/mL. Aktivitas antioksidan (1) dan (2) dinyatakan dengan nilai IC₅₀ masing-masing sebesar 2,83 dan 13,95 µg/mL. Nilai LC₅₀ dengan uji BSLT (1) dan (2) masing-masing 350 dan >1000 µg/mL.