

Erdityo, C. W. 2014, Isolasi dan Identifikasi Senyawa Fenolik Dari Batang *Bauhinia semibifida* Serta Uji Aktivitas Antikanker Terhadap Sel Murin Leukemia P-388. Skripsi ini di bawah bimbingan Dr. Mulyadi Tanjung, M.S dan Dra. Tjitjik Srie Tjahjandarie, Ph.D, Departemen Kimia, Fakultas Sains dan Teknologi Universitas Airlangga.

ABSTRAK

Penelitian ini bertujuan untuk mengisolasi senyawa flavonoid dari batang *Bauhinia semibifida* serta menguji aktivitas antikanker terhadap sel murin leukemia P-388. Senyawa murni 6C,7O-dimetilaromadendrin dan phlorizin telah diisolasi dari ekstrak metanol batang *Bauhinia semibifida* menggunakan maserasi, kromatografi kolom silika gel, kromatografi vakum cair dan dimurnikan dengan kromatografi radial. Kemudian, struktur kedua senyawa ditentukan berdasarkan data spektroskopi UV-Vis, HRESIMS, IR, 1D dan 2D NMR. Uji aktivitas sitotoksik senyawa 6C,7O-dimetilaromadendrin dan phlorizin menggunakan metode MTT [3-(4,5-dimetiltiazol-2-il)2,5-difenil-tetrazoliumbromida] terhadap sel murin leukemia P-388 memperlihatkan nilai IC₅₀ sebesar 2.76 ± 0.08 ppm dan $6,16 \pm 3,50$ ppm dikategorikan mempunyai aktivitas moderat dan tidak aktif sedangkan aktivitas sitotoksik ekstrak etil asetat batang *Bauhinia semibifida* menunjukkan IC₅₀ $72,93 \pm 0,01$ ppm.

Kata Kunci : *Bauhinia semibifida*, 6C,7O -dimetilaromadendrin, phlorizin, antikanker, Murin leukemia P-388.

Erdityo, C. W. 2014, Isolation and Identification of Phenolic Compound From *Bauhinia semibifida* Stem With Anticancer Activity Against Murine Leukemia P-388 Cell. This final project is guidance by Dr. Mulyadi Tanjung, M.S and Dra. Tjitjik Srie Tjahjandarie, Ph.D, Chemistry Department Faculty of Science and Technology Airlangga University.

ABSTRACT

The objective of this research to isolate the flavonoid compound from the stem of *Bauhinia semibifida* as an anticancer against murine leukemia P-388 cell. Phlorizin and 6C,7O-dimethylaromadendrin were separated from the methanol extract by maceration, column chromatography, liquid vacuum chromatography, and purified by radial chromatography. Their structure were elucidated based on data from 1D and 2D NMR, IR, UV, and also HRESIMS spectrum. Cytotoxic activity of 6C,7O-dimethylaromadendrin and phlorizin compounds from *Bauhinia semibifida* stem tests against Murine leukemia P-388 cell by MTT [3-(4,5-dimethylthiazol-2-il)2,5-diphenil-tetrazoliumbromide] assay showing cytotoxic activity with IC_{50} $2,76 \pm 0,08$ and $6,16 \pm 3,50$ ppm categorized as moderate and weak activity. In the other, ethyl acetate extract showing cytotoxic activity with IC_{50} of $2.76 \pm 0,08$ ppm.

Keyword : *Bauhinia semibifida*, *phlorizin*, *6C,7O-dimethylaromadendrin*, *anticancer*, *Murine Leukemia P-388*.