

**SKRINING FITOKIMIA DAN UJI SITOTOKSISITAS
EKSTRAK ETANOL DAUN UNGU (*Graptophyllum
pictum* (L.) Griff) DENGAN METODE *BRINE
SHRIMP LETHALITY TEST* (BSLT)**

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ABSTRAK

Tanaman yang berpotensi sebagai antikanker salah satunya adalah daun ungu (*Graptophyllum pictum* (L.) Griff) yang termasuk famili Acanthaceae. Kandungan metabolit sekunder yang terdapat dalam daun ungu adalah golongan flavonoid. Flavonoid merupakan pigmen yang banyak ditemukan pada tumbuhan dan merupakan salah satu senyawa kimia yang memiliki efek antikanker. Tujuan penelitian ini adalah untuk mengetahui senyawa metabolit sekunder yang terdapat pada serbuk simplisia dan ekstrak etanol daun ungu dan untuk mengetahui potensi sebagai antikanker dengan penentuan LC_{50} .

Pada penelitian ini dilakukan skrining fitokimia daun ungu, karakterisasi simplisia dan pengujian sitotoksitas daun ungu. Pengujian sitotoksitas ekstrak etanol daun ungu menggunakan metode *Brine Shrimp Lethality Test* dilakukan dengan beberapa konsentrasi 100 ppm, 200 ppm, 300 ppm, 400 ppm, 500 ppm, 600 ppm, 700 ppm, 800 ppm, 900 ppm dan 1000 ppm.

Berdasarkan hasil penelitian dapat diketahui bahwa hasil skrining fitokimia daun ungu mengandung alkaloid, flavonoid, tanin, saponin, steroid dan glikosida. Hasil pengujian karakterisasi daun ungu pada kadar air 6,66%, kadar sari larut air 30,85%, kadar sari larut etanol 12,47%, kadar abu total 7,95% dan kadar abu tidak larut asam 0,86%. Hasil karakterisasi sesuai dengan ketentuan dalam Materia Medika Indonesia. Hasil pengujian dengan metode *Brine Shrimp Lethality Test* memberikan nilai LC_{50} 302,9005 $\mu\text{g/ml}$, sehingga ekstrak etanol daun ungu bersifat toksik dan berpotensi sebagai antikanker, karena senyawa uji bersifat toksik jika harga LC_{50} lebih kecil dari 1000 $\mu\text{g/ml}$.

Kata kunci : Daun Ungu, *Graptophyllum pictum* (L.) Griff, Sitotoksitas, BSLT, LC_{50}

**PHYTOCHEMICAL SCREENING AND CYTOTOXICITY
TESTING OF ETHANOL EXTRACT OF DAUN UNGU
(*Graptophyllum pictum* (L.) Griff) WITH BRINE
SHRIMP LETHALITY TEST (BSLT) METHOD**

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ABSTRACT

Daun ungu or caricature plant (*Graptophyllum pictum* (L.) Griff) of the family *Acanthaceae* has traditionally been used to cure various diseases including as anticancer. *Daun Ungu* is known to contain flavonoids. Flavonoids are common plant pigments that are widely distributed in the plant kingdom with anticancer activity. The purpose of this study was to determine the secondary metabolites contained in the crude drug and ethanol extract of *daun ungu* and to explore the potential of the ethanol extract of *daun ungu* as anticancer agent by determining the LC_{50} .

In this study, phytochemical screening and characterization of *simplicia* and extract of *daun ungu* were carried out. Cytotoxicity testing of ethanolic extract of purple leaves using the Brine Shrimp Lethality Test method was carried out with several concentrations: 100 ppm, 200 ppm, 300 ppm, 400 ppm, 500 ppm, 600 ppm, 700 ppm, 800 ppm, 900 ppm, 1000 ppm.

The results of the study, showed that the phytochemical screening of *daun ungu* contain alkaloids, flavonoids, tannins, saponins steroids and glycoside. The results of the characterization of purple leaves at 6,66% water content, water soluble extract content of 30,85%, ethanol soluble extract content of 12,47%, total ash content of 7,95% and acid insoluble ash content of 0,86%. The results of this characterization show results that are in accordance with the *Materia Medika Indonesia*. The results of the test using the Brine Shrimp Lethality Test method gave an LC_{50} value of 302,9005 $\mu\text{g/ml}$, so that the ethanol extract of *daun ungu* is toxic and has the potential as anticancer, because the test compound is said to be toxic if the LC_{50} value is less than 1000 $\mu\text{g/ml}$.

Keywords : *Daun Ungu, Graptophyllum pictum* (L.) Griff, Cytotoxicity, BSLT, LC_{50}