

# Aktivitas Antioksidan serta Kadar Fenol dan Flavonoid Total Ekstrak Etanol 70% Daun *Spatholobus littoralis* Hassk. Hasil Maserasi dan Ultrasound-assisted Extraction = Antioxidant Activity and Total Phenol and Flavonoid Content of 70% Ethanol Extract of *Spatholobus littoralis* Hassk. Leaves Effect of Maceration and Ultrasound-assisted Extraction

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## Abstrak

Tumbuhan bajakah tampala (*Spatholobus littoralis* Hassk.), yang berasal dari famili Fabaceae, digunakan secara turun temurun oleh masyarakat dayak untuk mengobati berbagai penyakit. Penelitian ini bertujuan untuk mengetahui kadar fenol, flavonoid total, dan aktivitas antioksidan terhadap ekstrak etanol 70% daun bajakah tampala yang diekstraksi dengan metode maserasi dan UAE. Rendemen ekstrak yang diperoleh dari metode maserasi dan UAE adalah 13,41% dan 16,16%. Kadar fenol total metode maserasi dan UAE sebesar  $98,3 \pm 0,34$  dan  $101,260 \pm 0,75$  mg EAG/g ekstrak. Kadar flavonoid total metode maserasi dan UAE sebesar  $15,73 \pm 0,09$  dan  $15,86 \pm 0,15$  mg EK/g ekstrak. Hasil uji aktivitas antioksidan DPPH dengan metode maserasi dan UAE menunjukkan aktivitas antioksidan yang sangat kuat dengan nilai  $IC_{50} = 42,83$  g/mL dan  $IC_{50} = 34,2$  g/mL, sedangkan hasil pengujian aktivitas antioksidan FRAP metode maserasi dan UAE sebesar  $18,828 \pm 0,15$  dan  $19,087 \pm 0,28$  g FeSO<sub>4</sub> ekuivalen/100 g ekstrak. Hasil penapisan fitokimia menunjukkan daun bajakah tampala mengandung alkaloid, tanin, saponin, fenol, flavonoid, terpenoid, dan glikosida. Berdasarkan hasil penelitian tersebut, dapat disimpulkan bahwa ekstrak daun bajakah tampala (*Spatholobus littoralis* Hassk.) memiliki aktivitas antioksidan yang sangat kuat.

.....Bajakah tampala (*Spatholobus littoralis* Hassk.), which comes from the Fabaceae family, is used for generations by the Dayak community to treat various diseases. This study aims to determine the content of phenol, flavonoids, and antioxidant activity of the 70% ethanol extract of bajakah tampala extracted by maceration and UAE methods. The yield of the extract obtained from the maceration method and UAE was 13,41% and 16,16%. The total phenolic content from the maceration and UAE method was  $98,3 \pm 0,34$  and  $101,260 \pm 0,75$  mg GAE/g extract. Total flavonoid content from the maceration and UAE methods were  $15,73 \pm 0,09$  and  $15,86 \pm 0,15$  mg EQ/g extract. The results of the DPPH antioxidant activity test with the maceration and UAE methods showed very strong antioxidant activity with  $IC_{50} = 42,83$  g/mL and  $IC_{50} = 34,2$  g/mL, while the results of the FRAP antioxidant activity test with maceration and UAE methods were  $18,828 \pm 0,15$  and  $19,087 \pm 0,28$  g FeSO<sub>4</sub> equivalent/100 g extract. The results of the phytochemical screening also showed that the bajakah tampala leaves contain alkaloids, tannins, saponins, phenols, flavonoids, terpenoids, and glycosides. Based on the results of this study, it can be concluded that the extract of the leaves of the bajakah tampala (*Spatholobus littoralis* Hassk.) has very strong antioxidant activity.