PENGARUH PERBEDAAN METODE EKSTRAKSI TERHADAP PEREDAMAN RADIKAL BEBAS DPPH EKSTRAK ETANOL DAUN NANGKA (*Artocarpus heterophyllus* L.)

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INTISARI

Latar Belakang: Daun nangka (*Artocarpus heterophyllus* L.) merupakan salah satu sumber antioksidan alami karena mengandung senyawa flavonoid. Senyawa flavonoid dari daun nangka dapat diperoleh dengan proses ekstraksi.
Tujuan Penelitian: Mengetahui pengaruh perbedaan metode ekstraksi terhadap aktivitas peredaman radikal bebas DPPH ekstrak etanol daun nangka.
Metode Penelitian: Daun nangka diekstraksi dengan metode maserasi dan *Ultrasonic-assisted Extraction* (UAE) dengan suhu 40ºC selama 30 menit menggunakan pelarut etanol 70% (perbandingan 1:10). Hasil ekstraksi kemudian dilakukan uji peredaman radikal bebas dengan metode DPPH. Aktivitas peredaman radikal bebas dihitung dengan nilai IC_{50}.
Hasil Penelitian: Ekstrak dengan metode ekstraksi UAE memiliki aktivitas antioksidan IC_{50} sebesar 42,028 ± 0,301 ppm lebih tinggi dibandingkan dengan metode ekstraksi nilai IC_{50} maserasi yakni 113,785 ± 1,052 ppm.
Kesimpulan: Metode ekstraksi berpengaruh terhadap aktivitas peredaman radikal bebas DPPH ekstrak daun nangka
Kata Kunci : Daun nangka, *Artocarpus heterophyllus* L., Antioksidan, DPPH (*2,2-difenil-1-pikrilhidrazil*), UAE, Maserasi.

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THE EFFECT OF DIFFERENT EXTRACTION METHODS ON THE SCAVENGING OF DPPH FREE RADICALS FROM THE ETHANOL EXTRACT OF JACKFRUIT LEAVES (*Artocarpus heterophyllus* L.)

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ABSTRAK

Background: Jackfruit leaves (*Artocarpus heterophyllus* L.) is one of natural antioxidants because it contains flavonoid compounds. Flavonoid compounds from jackfruit leaves can be optainable by the extraction process.
Research Objective: To evaluate the effect of different extraction methods on DPPH free radical scavenging activity of jackfruit leaves ethanol extract.
Research Method: Jackfruit leaves ware extracted by maceration method and *Ultrasonic-assisted Extraction* (UAE) at a temperature of 40ºC for 30 minutes using 70% ethanol solvent (1:10 ratio). The extraction results were then tested for free radical scavenging using the DPPH method. Free radical scavenging activity is datermined with IC_{50} values.
Results: The extract using the UAE extraction method had an IC_{50} antioxidant activity of 42,028 ± 0,301 ppm, which was higher than the IC_{50} extraction maceration method of 113,785 ± 1,052 ppm.
Conclusion: The extraction method has an effect on the free radical scavenging activity of DPPH of jackfruit leaves extract.
Keywords: Jackfruit leaves, *Artocarpus heterophyllus* L., Antioxidants, DPPH (*2,2-diphenyl-1-picrilhydrazyl*), UAE, Maceration.

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