



DETERMINATION OF TOTAL PHENOLIC CONTENT, QUERCETIN, AND RUTIN OF COSMOS CAUDATUS LEAF EXTRACTS AND THEIR CONTRIBUTION TOWARD SCAVENGING DPPH RADICALS

Mustofa Ahda^{1,2,3✉}, Amalya Nurul Khairi^{2,4}, Kholil Fahri^{1*}, Mohd Salleh Rofiee^{5,6}

¹Department of Pharmaceutical Chemistry, Faculty of Pharmacy, Universitas Ahmad Dahlan, Yogyakarta

²Ahmad Dahlan Halal Center, Universitas Ahmad Dahlan, Yogyakarta

³Department of Pharmaceutical Chemistry, International Islamic University Malaysia, Kuantan Malaysia

⁴Department of Food Technology, Faculty of Engineering, Universitas Ahmad Dahlan, Yogyakarta

⁵Integrative Pharmacogenomics Institute (iPROMISE), Universiti Teknologi MARA Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor.

⁶Faculty of Health Sciences, Universiti Teknologi MARA Selangor Branch, Puncak Alam Campus, Bandar Puncak Alam, Selangor.

✉mustofa_ahda@yahoo.com

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ABSTRACT

C. caudatus leaves are traditionally served as a salad. The total phenolic content (TPC), rutin and quercetin levels, and inhibition against DPPH radicals were all determined in this study. This plant has a TPC of 35.891-91.321 µg gallic acid equivalent/mg dried extract. Rutin and quercetin levels in this plant are approximately 17.97-18.59 µg/mg and 0.73-0.79 µg/mg, respectively. The extract with the highest TPC and rutin levels is 40% ethanolic extract, whereas the extract with the highest quercetin levels and DPPH radicals inhibition is 80% ethanolic extract. Furthermore, both 80% ethanolic extract and 60% ethanolic extract were classified as being similar in this investigation. Meanwhile, the good solid-to-solvent ratio employed in the extraction is 1:6 (w/v). As the outcome of this research, it was recommended that this herb be extracted using 60-80% ethanolic extract with a solid solvent ratio of 1:6.
