

ABSTRACT

DETERMINATION OF TOTAL FLAVONOID CONTENT OF ETHANOL EXTRACT BLACK BETEL (*Piper betle* L. var *nigra*) USING UV-Vis SPECTROPHOTOMETRY METHOD

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*Black betel (Piper betle L. var nigra) is one of the medicinal plants from Piperacea family that grows in Indonesia. Black betel is also known to contain a secondary metabolites from the amide group, alkaloids, steroids, flavonoids, saponins, phenolic acids, terpenoids, and lignin that efficacious as antimicrobial, antirheumatic, antiviral dan antibacterial. Flavonoids are natural phenolic compounds that have potential as antioxidants and have bioactivity as drugs with a C6-C3-C6 chemical structure. This study aims to determine the total flavonoid content that contained in etanol extract of black betel using Spectrophotometry UV-Vis methods. Quercetin used as comparison solution to produce a regression equation that is $y = 0.0062x - 0.0482$ with a correlation coefficient value $(r) = 0.9799$. In determining the levels of flavonoids with 3 times replication, the absorption was measured using visible spectrophotometer at a maximum wavelength of 414nm. The value of each absorbance of the sample was entered into the linear regression equation of the standard solution of quercetin to obtain the result that flavonoid content ethanol extract of black betel (*Piper betle* L. var *nigra*) was the $(37,6820 \pm 0,2886)$ mg QE/g extract.*

Keyword : Black betel, Extract, Flavonoid, Quercetin, Spectrophotometry.