

Potensi Fraksi Etanol Ekstrak *Calophyllum flavoramulum* sebagai Antivirus Dengue = Potency of Ethanol extract of *Calophyllum flavoramulum* as Dengue Antiviral

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Abstrak

[Saat ini tengah banyak studi yang dilakukan untuk menemukan antivirus dengue (DENV) dari ekstrak berbagai tumbuhan sebagai alternatif pengobatan terhadap infeksi DENV. *Calophyllum flavoramulum* (*C. flavoramulum*) merupakan tanaman yang banyak hidup di daerah Asia Tenggara ini memiliki kandungan dari turunan xanthone dan flavonoid yang memiliki potensi sebagai antivirus. Pada studi ini dilakukan evaluasi efek inhibisi dari fraksi etanol ekstrak daun *C. flavoramulum* terhadap DENV-2 strain New Guinea C (NGC). Efek inhibisi (IC₅₀) dievaluasi dengan menggunakan focus assay. Sedangkan efek toksisitas (CC₅₀) terhadap sel dievaluasi pada sel Huh7it-1 menggunakan metode MTT assay. Hasil dari studi ini menunjukkan CC₅₀ = 473,50ug/ml, IC₅₀ = 41,74ug/ml, dan SI=11,33. Hasil tersebut menunjukkan bahwa *C. flavoramulum* tidak toksik terhadap sel hidup dan memiliki nilai SI yang cukup tinggi sehingga efektif untuk digunakan sebagai antivirus dengue. Akan tetapi, perlu diteliti lebih lanjut mengenai kandungan aktif dalam *C. flavoramulum* yang memiliki aktivitas untuk menghambat replikasi DENV.;

In recent years, several studies have been conducted to find dengue (DENV) antiviral from natural extract as an alternative management for dengue infection. *Calophyllum flavoramulum* (*C. flavoramulum*), one of South East Asia plants, contains derivatives of flavonoid and xanthone where both have been known as potential dengue antivirals. This study evaluated inhibitory potential of ethanol extract from *C. flavoramulum* leaf to DENV-2 strain New Guinea C (NGC) through focus assay. Along with inhibitory effect (IC₅₀), toxicity effect (CC₅₀) to Huh7it-1 cell also evaluated through MTT assay. The result of this study shown IC₅₀ = 41.74 ug/mL, CC₅₀ = 473.50 ug/mL, and SI=11.33. In conclusion, extract of *C. flavoramulum* can be used selectively as a dengue antiviral, besides it is not toxic for living cells. More studies are needed to find its active ingredients which specifically have the ability to inhibit DENV replication.;

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