

**UJI AKTIFITAS ANTIBAKTERI, ANTIMALARIA, DAN IDENTIFIKASI
SENYAWA EKSTRAK KARANG LUNAK *Lobophytum* sp. DARI
PERAIRAN PULAU SELAYAR, SULAWESI SELATAN**

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INTISARI

Penelitian ini bertujuan untuk mengidentifikasi senyawa bioaktif dan mengetahui aktivitas antibakteri serta antimalaria ekstrak karang lunak *Lobophytum* sp, dari perairan Pulau Selayar, Sulawesi selatan.

Isolasi dilakukan dengan cara maserasi menggunakan metanol:diklorometan (1:1 v/v). Ekstrak kemudian dipartisi menggunakan n-heksan, etil asetat, dan n-butanol. Fraksi dari masing-masing sampel diuji aktivitas antibakteri menggunakan metode difusi agar dan diuji aktivitas antimalaria menggunakan metode penghambatan polimerisasi hem. Fraksi dengan aktifitas antibakteri dan antimalaria paling tinggi kemudian diidentifikasi dengan *Liquid Chromatography-Mass Spectrometry* (LC-MS).

Fraksi etil asetat dari karang lunak *Lobophytum* sp. kedalaman 3 dan 6 meter berturut-turut memiliki daya hambat sedang dan kuat terhadap bakteri *Bacillus subtilis* dengan daya hambat sebesar 9,375 dan 11,675 mm. Fraksi etil asetat dari karang lunak *Lobophytum* sp. kedalaman 3 meter memiliki nilai IC₅₀ sebesar 11,718 ppm dan fraksi butanol kedalaman 6 meter memiliki nilai IC₅₀ sebesar 11,364 ppm, menunjukkan bahwa fraksi-fraksi tersebut memiliki aktivitas antimalaria karena memiliki nilai IC₅₀ yang lebih rendah daripada nilai IC₅₀ klorokuin yaitu sebesar 13,073 ppm. Fraksi etil asetat diindikasi mengandung senyawa menelloid E, 2-hydroperoxysarcophine, dan lobophyton O. Fraksi butanol diindikasi mengandung senyawa lobophyton Q dan durumolide O.

Kata kunci: *Lobophytum* sp., antibakteri, antimalaria, difusi agar, hem.

***THE ANTIBACTERIAL ACTIVITY TEST, ANTIMALARIAL ASSAY, AND
IDENTIFYING THE EXTRACT COMPOUNDS OF SOFT CORAL
Lobophytum* sp. FROM SELAYAR ISLAND, SOUTH SULAWESI**

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ABSTRACT

The aims of this research were to identifying bioactive compounds and to determine the antibacterial and antimalarial activities of extract of soft coral *Lobophytum* sp. from Selayar Island, South of Sulawesi.

Isolation was performed by maceration using a mixture of methanol:dichloromethane (1:1 v/v). The extract was then partitioned by n-hexane, ethyl acetate, n-butanol. Fraction from each samples were tested for their antibacterial activities using agar diffusion method and antimalarial activities using inhibition of hem polymerization method. The highest fraction of antibacterial and antimalarial activities were then identified by Liquid Chromatography-Mass Spectrometry (LC-MS).

The ethyl acetate fraction of *Lobophytum* sp. from 3 and 6 meters depth has moderate and strong inhibition against the bacteria *Bacillus subtilis* with the inhibition of 9.375 and 11.675 mm respectively. Ethyl acetate fraction of *Lobophytum* sp. 3 meters depth has IC₅₀ value of 11.718 ppm and the fraction of butanol from 6 meters depth has IC₅₀ value of 11.364 ppm, showed that these fractions have antimalarial activity because it has a lower IC₅₀ value than chloroquine IC₅₀ value that is equal to 13.073 ppm. The ethyl acetate fraction might contain meneloid E, 2-hydroperoxysarcophine, and lobophyton O. The butanol fraction might contain lobophyton Q and durumolide O.

Keywords: *Lobophytum* sp., antibacterial , antimalarial, agar diffusion, hem.