IDENTIFIKASI SENYAWA METABOLIT SEKUNDER, UJI ANTIBAKTERI, DAN UJI SITOTOKSIKMENGGUNAKAN METODE BRINE SHRIMP LETHALITY TEST (BSLT) DARI EKSTRAK DAUN BENALU JENGKOL (Scurrula ferruginea (Jack)

Danser)

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ABSTRACT

IDENTIFICATION OF SECONDARY METABOLITE, ANTIBACTERIAL, AND CITOTOXICITY ACTIVITY USING BRINE SHRIMP LETHALITY TEST(BSLT)

OF LEAVES EXTRACT FROM JENGKOL PARASITE (Scurrula ferruginea Jack Danser)

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Scurrula ferruginea Jack Danser from *loranthaceae*, is a medicinal herb used for the variety of human ailments. Traditionally, this parasitic shrub has been mainly used to anticancer. This study is aimed at determining secondary metabolite compound, antibacterial activities, citotoxicity activities using BSLT from the extract of shrub's leaves. Extracts obtained by maceration method from methanol, ethyl acetate, n-hexane solvent. The extraction of S. ferruginea leaves has been performed. It has been shown flavonoids, phenols, steroids, and alkaloids compounds in methanol extract, flavonoid, phenols and steroids compounds in ethyl acetate extract, steroids compound in n-hexane extract. In this study, cytotoxicity activities and antibacterial activities were tested by leaves extract of S. ferruginea. The result showed the cytotoxicity activities of methanol, ethyl acetate, and n-hexane extracts are toxic, with LC50 447,9195 μg/mL, 919,8140 μg/mL, and 883,2833 μg/mL respectively. While the best antibacterial activity was given by ethyl acetate extract (1000 µg/mL) with inhibition zones equal to 12 mm for Staphylococcus aureus and 9,1 mm for Eschericia coli. Ethyl acetate extract of S. ferruginea has good antibacterial activity.

Keywords: Scurrula ferruginea Jack Danser, secondary metabolites, BSLT, antibacterial