

FORMULATION AND STABILITY TEST OF ANTI ACNE GEL CONTAINING EXTRACT OF RAMBUTAN LEAVES (*Nephelium lappaceum* L.) AGAINST *Propionibacterium acnes* BACTERIA

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ABSTRACT

*Acne is a skin disease that is often experienced by people. Acne is a skin disease characterized by increased sebum production by the sebaceous glands and creatin of the pilosebaceous duct follicles which causes inflammation. Acne can occur due to internal factors (hormonal or genetic) and external (comedogenic, aggressive detergents or drugs). Propionibacterium acnes is a gram positive bacteria on human skin that can be opportunistic which can cause acne. Acne treatment can be given orally or topically with antibiotics, and topically, namely benzoyl peroxide. However, the side effects of using benzoyl peroxide can make the skin feel dry, irritated, erythema and allergic contact dermatitis. Therefore, natural ingredients are an alternative for acne treatment. One of the natural ingredients that have the potential as an anti-acne is the rambutan plant (*Nephelium lappaceum* L.). Rambutan plants contain compounds of alkaloids, flavonoids, tannins, and saponins that can be used as anti-bacteria against acne-causing bacteria. This study aims to formulate a gel preparation of rambutan leaf extract which has anti-acne properties. After the gel preparation was formulated, then the gel preparation was evaluated using organoleptic test, homogeneity test, pH test, viscosity test, dispersion test, adhesion test, irritation test and hedonic test. Then, the stability test was carried out using the cycling test method. In this study, antibacterial activity was also tested against *Propionibacterium acnes* by using the well diffusion method.*

Keywords : *Antiacnes, cycling test, gel, rambutan leaves (*Nephelium lappaceum* L.), and *Propionibacterium acnes*.*

(xiii + 72 + attachment)

References (2000 - 2022)