

**FORMULASI DAN EVALUASI EMULGEL ANTIJERAWAT DARI
MINYAK ATSIRI DAUN KEMANGI (*Ocimum sanctum* L) TERHADAP
*Propionibacterium acnes***

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ABSTRAK

Minyak atsiri daun kemangi (*Ocimum sanctum* L) banyak digunakan dalam pengobatan tradisional, selain kegunaannya sebagai minyak aromatik minyak atsiri ini pun dapat mempunyai aktivitas antibakteri. Manfaat lain dari minyak atsiri daun kemangi (*Ocimum sanctum* L) antara lain sakit kepala, sakit telinga, batuk, pilek, peradangan, sebagai pengobatan diare, disentri, sembelit, cacingan, demam, meringankan gejala bronchitis, flu, batuk, sinusitis, rematik, nyeri otot, asam urat dan kelelahan. Sediaan emulgel merupakan sediaan topikal kombinasi antara sediaan emulsi dan gel. Tujuan dari penelitian ini adalah untuk mengetahui apakah minyak atsiri daun kemangi (*Ocimum sanctum* L) dapat diformulasikan menjadi sediaan emulgel antijerawat dan bagaimana formula terbaik dari emulgel antijerawat minyak atsiri daun kemangi (*Ocimum sanctum* L). Penelitian ini dilakukan dengan membuat formula emulgel antijerawat dengan memvariasikan konsentrasi minyak atsiri daun kemangi (*Ocimum sanctum* L) lalu sediaan akan dievaluasi stabilitasnya selama 28 hari di suhu ruang, dan 12 hari pada suhu 4°C dan suhu 40°C. Hasil yang didapatkan menunjukkan bahwa minyak atsiri daun kemangi (*Ocimum sanctum* L) dapat diformulasikan sebagai sediaan emulgel antijerawat karena seluruh evaluasi memenuhi syarat. Namun sediaan emulgel antijerawat minyak atsiri daun kemangi (*Ocimum sanctum* L) tidak stabil dalam penyimpanan suhu ekstrim karena hasil yang didapatkan pada uji statistik *Kruskal Wallis* terjadi perubahan signifikan $<0,05$. Pada pengujian iritasi sediaan emulgel antijerawat minyak atsiri daun kemangi (*Ocimum sanctum* L) didapatkan hasil bahwa tidak adanya iritasi yang muncul. Pada pengujian aktivitas antibakteri terhadap *Propionibacterium acnes* didapatkan hasil rata-rata zona hambat untuk formula konsentrasi 1,5% sebesar 13,89 mm.

Kata kunci: Minyak atsiri daun kemangi (*Ocimum sanctum* L), emulgel, antijerawat, *Propionibacterium acnes*, stabilitas

**FORMULATION AND EVALUATION OF ANTI-ACNE EMULGEL FROM
ESSENTIAL OIL OF BASIL LEAVES (*Ocimum sanctum* L) AGAINST
*Propionibacterium acnes***

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ABSTRACT

*Basil leaf essential oil (*Ocimum sanctum* L) is widely used in traditional medicine, in addition to its use as an aromatic oil, this essential oil can also have antibacterial activity. Other benefits of basil leaf essential oil (*Ocimum sanctum* L) include headaches, earaches, coughs, colds, inflammation, as a treatment for diarrhea, dysentery, constipation, worms, fever, relieving symptoms of bronchitis, flu, coughs, sinusitis, rheumatism, muscle pain, gout and fatigue. Emulgel preparations are topical preparations that combine emulsion and gel preparations. The purpose of this study was to determine whether basil leaf essential oil (*Ocimum sanctum* L) can be formulated into an anti-acne emulgel preparation and what is the best formula for basil leaf essential oil (*Ocimum sanctum* L) anti-acne emulgel. This study was conducted by making an anti-acne emulgel formula by varying the concentration of basil leaf essential oil (*Ocimum sanctum* L) and then the preparation will be evaluated for its stability for 28 days at room temperature, and 12 days at 4 °C and 40 °C. The results obtained indicate that basil leaf essential oil (*Ocimum sanctum* L) can be formulated as an anti-acne emulgel preparation because all evaluations meet the requirements. However, the anti-acne emulgel preparation of basil leaf essential oil (*Ocimum sanctum* L) is not stable in extreme temperature storage because the results obtained in the Kruskal Wallis statistical test showed a significant change <0.05 . In the irritation test of the anti-acne emulgel preparation of basil leaf essential oil (*Ocimum sanctum* L), the results showed that no irritation appeared. In testing the antibacterial activity against *Propionibacterium acnes*, the average inhibition zone for the 1.5% concentration formula was 13.89 mm.*

Key words: *Basil leaf essential oil (*Ocimum sanctum* L), emulgel, anti-acne, *Propionibacterium acnes*, stability*