

## INTISARI

Lengkuas (*Alpinia galanga* L.) secara umum digunakan sebagai bumbu rempah dan jamu di masyarakat. Berdasarkan hasil skrining fitokimia, bagian rimpang lengkuas mengandung golongan senyawa metabolit sekunder fenilpropanoid yang dapat memberikan daya hambat terhadap pertumbuhan mikroba. *Review* ini bertujuan untuk mengevaluasi formula dan stabilitas fisik sediaan topikal rimpang lengkuas (*Alpinia galanga* L.) sehingga mampu meningkatkan potensi *Alpinia galanga* L. sebagai antimikroba.

Penelitian termasuk dalam jenis *narrative review* dengan melakukan pencarian literatur dari database Scopus, ScienceDirect, NCBI PubMed, Wiley Online Library, dan Google Scholar berdasarkan kriteria inklusi dan eksklusi yang telah ditentukan. Hasil penelitian diharapkan berguna bagi pengembangan formulasi *Alpinia galanga* L. yang memiliki potensi sebagai sediaan topikal antimikroba di masa mendatang.

Hasil *review* menunjukkan bahwa *Alpinia galanga* L. dapat dimanfaatkan sebagai antimikroba dalam berbagai formulasi sediaan topikal krim, gel, sabun, dan bedak tabur. Sediaan topikal krim dan gel dapat diformulasikan dengan konsentrasi ekstrak lengkuas 3-10% (antifungi), konsentrasi ekstrak lengkuas 20% dan minyak atsiri lengkuas 0,01% (gel antibakteri dan antiseptik). Sediaan sabun dapat diformulasikan dengan konsentrasi ekstrak lengkuas 1% dan minyak atsiri lengkuas 10-20% (antifungi), serta sediaan bedak tabur dapat diformulasikan dengan rendemen ekstrak lengkuas 16,0% (antifungi). Sifat fisik viskositas perlu diperhatikan untuk menjaga stabilitas sediaan krim dan gel, sedangkan pada sabun dan bedak tabur pH sediaan saat penyimpanan perlu diperhatikan.

**Kata kunci:** lengkuas, formulasi, stabilitas, antimikroba

## ***ABSTRACT***

Galangal (*Alpinia galanga* L.) are widely used as spices and herbal medicine in Indonesia. Based on the results of phytochemical screening, the parts of galangal rhizome contain phenylpropanoid secondary metabolites which inhibit the growth of microbes. Due to this phenomenon, this study aims to evaluate and develop the formula and physical stability of galangal rhizome (*Alpinia galanga* L.) topical dosage form which can enhance the potential of *Alpinia galanga* L. as antimicrobial agent.

In this study, the researcher applies narrative review by assessing preceding studies from the Scopus, ScienceDirect, NCBI PubMed, Wiley Online Library, and Google Scholar databases in accordance with the inclusion and exclusion criteria. The results of this research are expected to be useful for the development of the formulation of *Alpinia galanga* L. which has the potential as antimicrobial topical dosage form in the future.

The results of this research show that *Alpinia galanga* L. can be used as an antimicrobial agent in various topical dosage form formulations of cream, gel, soap, and loose powder. Topical antimicrobial cream and gel can be formulated with 3-10% galangal extract concentration (as antifungal), 20% galangal extract concentration and 0.01% galangal essential oil (as antibacterial and antiseptic gel). Soap preparation can be formulated with 1% galangal extract concentration and 10-20% galangal essential oil (as antifungal), and loose powder preparation can be formulated with 16.0% galangal extract yield (as antifungal). The physical properties of viscosity need to be considered to maintain the stability of cream and gel preparations, while in soap and loose powder the pH of preparation during storage needs to be considered.

**Keywords:** galangal, formulation, stability, antimicrobials