

INTISARI

Indonesia merupakan daerah tropis sehingga memungkinkan kulit terpapar radiasi UV dengan frekuensi berlebih dan berulang. Dengan memanfaatkan efek fotoproteksi dari *Aloe vera*, dapat dikembangkan menjadi sediaan topikal tabir surya dalam bentuk gel, *lotion*, emulgel, dan krim. Tujuan dari *review* ini adalah untuk mengkaji aktivitas fotoproteksi UV dari *Aloe vera* sebagai bahan aktif tabir surya serta stabilitas fisik *Aloe vera* dalam sediaan topikal.

Metode yang digunakan yaitu *narrative review* dengan menggunakan data sekunder melalui teknik studi literatur. Sifat fisik dan stabilitas sediaan *Aloe vera* dievaluasi menggunakan data hasil uji organoleptis, homogenitas, viskositas, pH, daya sebar, daya lekat, sineresis, *freeze thaw cycling* dan sentrifugasi.

Hasil *review* menunjukkan senyawa potensial aloin, aloesin, dan G1C2F1 memberikan aktivitas utama efek fotoproteksi terhadap UV. Uji aktivitas tabir surya secara *in vitro* terhadap sediaan topikal ekstrak terstandar *Aloe vera* memiliki nilai SPF > 15 sehingga tergolong kategori proteksi sedang. Pemilihan konsentrasi eksipien dan sumber bahan aktif dapat mempengaruhi stabilitas fisik sediaan topikal *Aloe vera*.

Kata kunci: *Aloe vera*, topikal, tabir surya, UV.

ABSTRACT

Indonesia is a tropical country, so it allows the skin to be exposed to UV rays with excessive and repeatedly frequency. By utilizing the photoprotective effect of the aloe vera, it can be developed into topical sunscreen cosmetic dosage form which were gel, lotion, emulgel, and cream. The purpose of this review were to evaluate the UV photoprotection activity in aloe vera as a sunscreen active ingredient and physical stability of aloe vera topical dosage form.

Narrative review is managed using secondary data through literature study techniques. The physical and stability properties of the topical aloe vera dosage form were evaluated using data from the tests of organoleptic, homogeneity, viscosity, pH, spreadability, adhesion, syneresis, freeze thaw cycling and centrifugation results.

The results of this review shows that the potential substances of aloin, aloesin, and G1C2F1 provide the main activity of the photoprotection effect against UV. The *in vitro* sunscreen activity test to topical standarized aloe vera extract dosage form had SPF value > 15 so it was classified as moderate protection category. Excipient concentration and the source of the active ingredient can affect the physical stability of aloe vera topical dosage form.

Keywords: *Aloe vera*, topical, sunscreen, UV.