

Formulasi dan evaluasi krim kosmetik anti-kolagenase dan anti-elastase sargassum plagyophyllum = Formulation and evaluation of anti-collagenase and anti-elastase cosmetic cream from sargassum plagyophyllum

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Abstrak

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Tanaman yang mengandung antioksidan dapat dikembangkan menjadi sediaan kosmetik krim anti-kerut karena kemampuannya sebagai anti-kolagenase dan anti-elastase. Rumput laut coklat *Sargassum* sp. diketahui mengandung antioksidan polifenol seperti senyawa floroglusinol. Penelitian terhadap *Sargassum* sp. perlu dilakukan karena pemanfaatan rumput laut belum maksimal. Penelitian ini bertujuan untuk mendapatkan krim *Sargassum* sp yang stabil dan memiliki aktivitas anti-kolagenase serta anti-elastase. Sediaan krim *Sargassum plagyophyllum* diuji total fenolik dengan metode Folin- ciocalteu dan diuji aktivitas anti-kolagenase dan elastasinya. Hasil menunjukkan krim *Sargassum plagyophyllum* memiliki total fenolik yaitu 5,597 0,74 mg PGE/g ekstrak kering, dan memiliki nilai IC50 anti-kolagenase krim sebesar 20,83 ?g/mL sedangkan nilai IC50 anti-elastase sebesar 183,73 ?g/mL. Kesimpulannya bahwa sediaan krim *Sargassum plagyophyllum* stabil dan memiliki aktivitas anti-kolagenase serta anti-elastase.

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ABSTRACT

Anti wrinkle cosmetic preparations which function as anti collagenase and anti elastase is caused by the ability of antioxidants inside the plants. Brown seaweed *Sargassum* sp. is known to contain polyphenol antioxidants such as phloroglucinol compounds. The number of seaweed production is high but its utilization has not been maximized. This study to obtain cream containing *Sargassum* sp. extract which is stable and have anti collagenase and anti elastase activity. The total phenolic content of *Sargassum plagyophyllum* cream was tested with Folin ciocalteu method and then tested for its anti collagenase and elastase activity. The result show that the *Sargassum plagyophyllum* cream formulation has total phenol content of 5.597 0.74 mg PGE g of dried extract, IC50 value of cream as anti collagenase was 20.83 g mL and as an anti elastase value of 183.73 g mL. In conclusion, *Sargassum plagyophyllum* can be developed as a stable cream and has anti collagenase and anti elastase activity.