

# 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

### <b>ABSTRAK</b><br>

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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### <b>ABSTRACT</b><br>

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.