Formulasi Masker Gel *Peel-Off* Kulit Buah Manggis (*Garcinia mangostana* Linn.)

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Abstrak
Kulit buah manggis (*Garcinia mangostana* Linn.) mengandung senyawa xanton yang diketahui memiliki aktivitas antioksidan yang tinggi. Penelitian sebelumnya menunjukkan bahwa Fraksi Etil Asetat Kulit Buah Manggis (FEAKBM) memiliki aktivitas antioksidan paling tinggi dibandingkan fraksi air dan n-heksan. Penelitian ini bertujuan untuk membuat formulasi dan mengarakterisasi sediaan masker gel *peel-off* mengandung FEAKBM. Masker gel *peel-off* diformulasi menggunakan Polivinil Alkohol (PVA) dan Hidroksi Propil Metil Selulosa (HPMC) sebagai *gelling agent*. Uji aktivitas antioksidan dari fraksi dan sediaan dilakukan secara *in-vitro* dengan uji peredaman DPPH. Terhadap sediaan dilakukan evaluasi pH, viskositas, daya sebar, dan waktu mengering. Fraksi etil asetat kulit buah manggis memiliki aktivitas antioksidan sangat tinggi dengan nilai IC_{50} 19,240 µg/mL. Formula optimum basis masker gel mengandung PVA 14% dan HPMC 1%. Sediaan masker gel *peel-off* stabil berdasarkan uji stabilitas fisik pada suhu 40 ^{o}C selama 28 hari penyimpanan. Sediaan masker gel *peel-off* mengandung FEAKBM 1% memiliki aktivitas antioksidan dengan nilai persen inhibisi 53,57±0,591.

Kata kunci: Fraksi etil asetat, kulit buah manggis, masker gel *peel-off*

Formulation of Peel-Off Facial Mask from Mangosteen Pericarp (*Garcinia mangostana* Linn.)

Abstract
The pericarp of mangosteen (*Garcinia mangostana* Linn.) is a source of xanthones and other bioactive substances, with potential antioxidant activity. Our previous study showed that ethyl acetate fraction of mangosteen pericarp has highest antioxidant activity compared with water and n-hexane fractions. This study aims to develop and characterize the antioxidant peel-off facial mask (gel mask) containing ethyl acetate fraction of mangosteen pericarp. The peel off mask was formulates using polivynil alcohol (PVA) and hidroxypropylmethyl cellulose (HPMC) as gelling agents. Antioxidant activity of the fraction and the peel-off mask were evaluated following in vitro evaluation using the inhibition of free radical 2,2-diphenyl-1-picrylhydrazyl (DPPH). Evaluation of peel-off mask included organoleptic evaluation, pH, viscocity, spreadability, and film drying time. Ethyl acetate fraction of mangosteen has antioxidant activity with IC_{50} value was 19.240 µg/ mL. The optimum formulation of peel-off mask based on physical characterization was containing PVA 14% and HPMC 1%. The peel-off mask was stable based on physical stability test at 40 ^{o}C during 28 days of storage. The peel-off mask containing 1% of mangosteen ethyl acetate fraction has antioxidant activity with percent inhibition values was 53.57 ± 0.591.

Keywords: Ethyl acetate fraction, mangosteen pericarp, peel-off facial mask

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