

## ABSTRACT

### Standardization Simplicial and 70% Ethanol Extract of Mangosteen Rind (*Garcinia mangostana* L.)

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Mangosteen (*Garcinia mangostana* L.)'s rind will be developed as herbal drug. So, it should be standardized with determine standard parameters based on Herbal Pharmacopeia of Indonesia. It contains xanthone as secondary metabolite and  $\alpha$ -mangosteen as primary metabolite that useful for anti-diabetic (Yousif *et al.*, 2016). The result of the standard parameter of mangosteen rind simplicial showed determination of : organoleptic was dark brown, non-aromatic smell, and bitter taste; loss of drying was  $(9,28 \pm 0,10)$  %; ash content was  $(3,22 \pm 0,07)$  %; ash content insoluble in acidic was  $(0,56 \pm 0,05)$  %; dissolved compound in water was  $(6,91 \pm 0,41)$  %; dissolved compound in ethanol was  $(11,75 \pm 0,54)$  %; chromatographic profile by TLC showed that mangosteen rind contain  $\alpha$ -mangosteen. TLC- Densitometric method was used for determination of  $\alpha$ -mangosteen in mangosteen rind and it contained  $(18,03 \pm 0,79)$  % b/b of  $\alpha$ -mangosteen. And the result of the standard parameter of mangosteen rind 70% ethanol extract showed determination of : organoleptic was dark brown, non-aromatic smell, and bitter taste; water loss content was  $(9,28 \pm 0,10)$  %; ash content was  $(3,22 \pm 0,07)$  %; ash content insoluble in acidic was  $(0,56 \pm 0,05)$  %; dissolved compound in water was  $(6,91 \pm 0,41)$  %; dissolved compound in ethanol was  $(11,75 \pm 0,54)$  %; chromatographic profile by TLC showed that mangosteen rind contain  $\alpha$ -mangosteen. TLC- Densitometric method was used for determination of  $\alpha$ -mangosteen in mangosteen rind and it contained  $(33,49 \pm 0,81)$  % b/b of  $\alpha$ -mangosteen. It is concluded that both of them have qualified by the standard requirements based on Herbal Pharmacopeia of Indonesia.

**Keywords** : *Garcinia mangostana* L., mangosteen rind,  $\alpha$ -mangosteen, standardization, standard parameters of simplicial and extract.