

Specification : Gotu Kola extract / สารสกัดใบบัวบก

(Manose RM-0003)

(Application : An active ingredient for anti-inflammation /
bruises reduction in cosmetic products/ memory enhancement in
food supplements / สารสำคัญในผลิตภัณฑ์เครื่องสำอางต้านการอักเสบ ฟกช้ำ
และเป็นผลิตภัณฑ์เสริมอาหารเพื่อเพิ่มความจำ)

1. Name of the raw material : Gotu Kola extract (crude and semi-purified extract)
2. Active components : Triterpene acids, alkaloids, glycosides and flavonoids⁽¹⁾
3. Common and scientific name/ Family of the plant : Gotu Kola (*Centella asiatica* (L.) Urb.)/
UMBELLIFERAE
4. Physical appearance : Dark brownish-green solid with herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using madecassoside as a marker
7. Solubility : Soluble in water and ethanol

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8. Microbial contamination : No pathogenic microorganism with less than 1,000 cfu/g of the total plate count of bacteria, yeast and fungi which is conformed to the Thai FDA regulation
9. Biological activities : - Anti-inflammation, wound healing, memory enhancement and anti-oxidation⁽¹⁾
- Crude and semi-purified extract exhibited anti-inflammatory activity by inhibiting albumin denaturation with the IC₅₀ values of 3.06 ± 0.06 and 2.70 ± 0.06 mg/ml, respectively, while the IC₅₀ value of diclofenac diethylammonium, the standard anti-inflammatory drug is 1.58 ± 0.03 mg/ml.
10. Animal / human performance test : Anti-inflammation and wound healing in human volunteers⁽²⁾
11. Safety : No skin irritation in human volunteers

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12. Pharmaceutical, food supplement or cosmetic applications : Anti-inflammation and bruises reduction in cosmetic products/ memory enhancement in food supplement products
13. Recommended concentrations in the product : 0.1-10 % w/w
14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

References

1. Jamil SS, Nizami Q, Salam M. (2007) *Centella asiatica* (Linn.) Urban óA Review. **Natural Product Radiance**. 6(2): 158-170
2. Sastravaha G, Yotneungnit P, Booncong P, Sangtherapitikul P. (2003) Adjunctive periodontal treatment with *Centella asiatica* and *Punica granatum* extracts. A preliminary study. **Journal of International Academy of Peridontology**. 5(4): 106-115