

Specification : RJ-SD-KM Mixed Thai Medicinal Plant Extract/

สารสกัดสมุนไพรไทยผสม อาร์เจ-เอสดี-เคเอ็ม (Manose RM-0057)

(Application : An active ingredient for facial and body cleanser cosmetic products, which has anti-inflammatory, anti-oxidative, whitening and anti - acne activities / สารสำคัญในผลิตภัณฑ์เครื่องสำอางสำหรับทำความสะอาดผิวหนังและผิวกายที่มีฤทธิ์ต้านการอักเสบ ต้านปฏิกิริยาออกซิเดชั่น ช่วยให้ผิวขาวและต้านเชื้อสิว)

1. Name of the raw material : RJ-SD-KM Mixed Thai Medicinal Plant Extract
2. Active components : Anthraquinones, carotenoids and steroids
3. Common and scientific name/ Family of the plant : Laurel Clockvine leaf (*Thunbergia laurifolia* Lindl.) /ACANTHACEAE and Perilla seed (*Perilla frutescens* (L.) Britton) / LAMIACEAE
4. Physical appearance : Dark green - brownish semi-solid with specific herbal odor
5. pH : 5.58
6. Standardization : HPLC fingerprint using linoleic acid as a marker (retention time at 9.25 min with the content of 0.50 ± 0.02 g/g of the extract)
7. Solubility : Very slightly soluble in ethanol and methanol, practically insoluble in hot and cold water, glycerin, propylene glycol and mineral oil
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-oxidative activity by DPPH radical scavenging with the SC_{50} value of 0.16 ± 0.00

-
- mg/ml (ascorbic acid = 0.01 ± 0.00 mg/ml)
 - Tyrosinase inhibition activity with the IC_{50} value of 0.30 ± 0.05 mg/ml (kojic acid = 0.01 ± 0.01 mg/ml)
 - Anti-inflammatory activity by inhibiting nitric oxide synthesis in macrophage (RAW 264.7) at 23.80 ± 9.10 % (at 1 mg/ml) with 0.63 fold of the standard anti-inflammatory drug, triamcinolone acetonide (37.82 ± 3.55 %)
 - Antibacterial activity against *Cutibacterium acnes* with the inhibition zone of 7.48 ± 0.53 mm at 10 mg (clindamycin = 58.35 ± 0.34 mm at 0.002 mg)
10. Animal / human performance test : -
11. Safety : No cytotoxicity on human skin fibroblasts with % cell viability of 82.69 ± 6.44 % at the concentration of 1 mg/ml (SLS at the concentration of 1 mg/ml gives % cell viability of 13.99 ± 0.28 %)
12. Pharmaceutical, food supplement or cosmetic applications : Cosmetics and topical products for facial and body cleanser with anti-inflammatory/ anti-oxidative / whitening and anti – acne activities
13. Recommended concentrations in the product : 0.5 – 1.0 % w/w
14. Storage : Keep in tight and light protection container at 4 °C
15. Precautions : None

16. Cost per kg : Please request

References

1. Hongsing P., Palanuvej C. and Ruangrunsi N. (2020) *In vitro* biological activities of *Thunbergia laurifolia* stem and leaf with reference to rosmarinic acid. **Songklanakarin J. Sci. Technol.** 42(3): 615-620
2. Dhyani A., Chopra R. and Garg M. (2019) A Review on nutritional value, functional properties and pharmacological application of perilla (*Perilla frutescens* L.). **Biomed Pharmacol J.** 12(2). DOI: <https://dx.doi.org/10.13005/bpj/1685>