

Specification : Mixed Thai Medicinal Plant Extract for the Relief of
Psoriasis Symptoms/สารสกัดสมุนไพรไทยผสมใช้บรรเทาอาการสะเก็ดเงิน
(Manose RM-0073)

(Application : An active ingredient for anti-psoriasis topical products/
สารสำคัญในผลิตภัณฑ์สำหรับทาภายนอกเพื่อบรรเทาอาการสะเก็ดเงิน)

1. Name of the raw material : Mixed Thai Medicinal Plant Extract for the Relief of Psoriasis Symptoms
2. Active components : Terpene, phenolics and alkaloids^(1,2)
3. Common and scientific name/ Family of the plant : Laurel clock vine (*Thunbergia laurifolia* Lindl./ ACANTHACEAE) and galanga (*Alpinia galanga* (L.) Willd./ ZINGIBERACEAE)
4. Physical appearance : Greenish-black semi-solid with specific herbal odor⁽³⁾
5. pH : 4.23⁽³⁾
6. Standardization : HPLC fingerprint using eugenol as a marker⁽³⁾
7. Solubility : Soluble in alcohol⁽³⁾
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⁽³⁾
9. Biological activities :
 - Anti-inflammation activity of inhibiting denaturation by heat of albumin from egg white with the IC₅₀ value of 8.32±0.45 mg/ml (IC₅₀ value of diclofenac diethylammonium = 0.46±0.01 mg/ml)⁽³⁾
 - Anti-inflammation activity in macrophage at 0.01 mg/ml by inhibiting nitric oxide production of 29.62±2.68% (Triamcinolone acetonide at 1 mg/ml = 36.11±3.00%)⁽³⁾

-
- DPPH radical scavenging with the SC_{50} value of 0.10 ± 0.01 mg/ml (ascorbic acid = 0.02 ± 0.00 mg/ml)⁽³⁾
 - Nitric oxide radical scavenging with the SC_{50} value of 38.66 ± 7.63 mg/ml (ascorbic acid = 0.08 ± 0.01 mg/ml)⁽³⁾
 - Lipid peroxidation inhibition with the IPC_{50} value of 7.56 ± 0.99 mg/ml (vitamin E = 0.003 ± 0.00 mg/ml)⁽³⁾
10. Animal / human performance test : -
 11. Safety : No cytotoxicity on human skin fibroblasts with cell viability of $101.68 \pm 2.24\%$ at 1 mg/ml (SLS at 1 mg/ml = $26.42 \pm 1.87\%$)⁽³⁾
 12. Pharmaceutical, food supplement or cosmetic applications : Anti-psoriasis topical products (cream, gel, serum or lotion)
 13. Recommended concentrations in the product : 0.01-2 % 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. Chan E.W.C., Eng S.Y., Tan Y.P. and Wong Z.C. Phytochemistry and pharmacological properties of *Thunbergia laurifolia*: A Review. Pharmacognosy Journal, 2011; 3(24): 1-6.

-
2. Khairullah A.R., Solikhah T.I., Ansori A.N.M., Fadholly A., Ramandinianto S.C., Ansharieta R., Widodo A., Riwu K.H.P., Putri N., Proboningrat A., Kusala M.K.J., Rendragraha B.W., Putra A.R.S. and Anshor A. A Review of an Important Medicinal Plant: *Alpinia galanga* (L.) Willd. Sys Rev Pharm, 2020; 11(10): 387-39.
 3. Manose In-house Project “Mixed Thai Medicinal Plant Extracts for Psoriasis Symptoms”, 2022, Unpublished Report, www.manose.co