

Specification : YLMP-1 Lanna Medicinal Plant Extract for the Relief of Menstruation Pain in Women / สารสกัดจากตำรับยาสมุนไพรล้านนาสำหรับบรรเทาอาการปวดประจำเดือนในสตรี YLMP สูตรที่ 1 (Manose RM-0094)

(Application : An active ingredient for the relief of menstruation pain in women food supplements / สารสำคัญในผลิตภัณฑ์เสริมอาหารเพื่อบรรเทาอาการปวดประจำเดือนในสตรี)

1. Name of the raw material : YLMP-1 Lanna Medicinal Plant Extract for the Relief of Menstruation Pain in Women
2. Active components : Flavonoid, alkaloid and triterpenoid/steroid
3. Common and scientific name/ Family of the plant : Extracts from edible and medicinal plants such as Black Pepper⁽¹⁾ (*Piper nigrum*/ Piperaceae) and Tumeric⁽²⁾ (*Cuminum cyminum* L./ APIACEAE- UMBELLIFERAE)
4. Physical appearance : Brown solid with specific odor
5. pH : 5.52 (1% in distilled water)
6. Standardization : HPLC fingerprint with the retention time at 2.782 min (marker = gallic acid)
7. Stability of active constituent : Stable to strong/weak acid and oxidizing agent/ Unstable to strong/weak base, reducing agent and acid salt
8. Solubility : Slightly soluble in hot water (100 °C), insoluble in cold water (25 °C), methanol, ethanol, propylene glycol, glycerin and mineral oil
9. 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
10. Biological activities⁽³⁾ : - Antioxidant DPPH radical scavenging (SC₅₀ = 16.19 mg/ml) (standard vitamin C = 0.14 mg/ml)

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- Tyrosinase inhibition IC_{50} = 0.336 mg/ml (standard kojic acid = 0.036 mg/ml)
11. Animal / human performance test : -
12. Safety : Cell viability 124.39% at 0.1 mg/ml in human skin fibroblasts (standard vitamin C = 140.21%)/safe for topical use/ LD_{50} > 5000 mg/kg in Wistar rats by oral administration/ considered as practically nontoxic
13. Pharmaceutical, food supplement or cosmetic applications : Tonics and as menstruation pain reduction food supplements for women
14. Recommended concentrations in the product : 2.85 g/5 days or as needed
15. Storage : Keep in tight container at cool place (4 °C) protected from light
16. Precautions : None
17. Cost per kg : Please request

References

1. Tangyuenyongwatana P. and Gritsanapan W. Prasaplai: An essential Thai traditional formulation for primary dysmenorrhea treatment. TANG [HUMANITAS MEDICINE]. 2014; 4(2): 1-8.
2. Jani D. and Gujarathi J. Pharmacological appraisal of *Cuminum Cyminum* L. in dysmenorrhoea: an ayurvedic approach in consideration of current evidences. International Journal of Ayurveda and Pharma Research, 2016; 4(12): 29-35.
3. Manose In-house Project “The Development of Extract from Lanna Medicinal Plant Recipe for Tonics and Menstruation Pain (YLMP-1)”, Manose Health and Beauty Research Center (www.manose.co), unpublished, 2007.