

Specification : YLMP-2 Lanna Medicinal Plant Extract for Tonics and the Relief of Menstruation Pain in Women / สารสกัดจากตำรับยาสมุนไพรล้านนา สำหรับบรรเทาอาการปวดประจำเดือนในสตรี YLMP สูตรที่ 2 (Manose RM-0095)

(Application : An active ingredient in food supplements for tonics and menstruation pain reduction in women / สารสำคัญในผลิตภัณฑ์เสริมอาหารเพื่อบรรเทาอาการปวดประจำเดือนในสตรี)

1. Name of the raw material : YLMP-2 Lanna Medicinal Plant Extract for Tonics and the Relief of Menstruation Pain in Women
2. Active components : Anthraquinone, tannin, flavonoid and triterpenoid/steroid
3. Common and scientific name/
Family of the plant : Extracts from edible and medicinal plants such as Long Pepper⁽¹⁾ (*Piper retrofractum* Vahl./ PIPERACEAE) and Ginger⁽²⁾ (*Zingiber officinale* Roscoe/ ZINGIBERACEAE)
4. Physical appearance : Brown solid with specific odor
5. pH : 4.48 (1% in distilled water)
6. Standardization : HPLC fingerprint with the retention times at 3.005 min (marker = gallic acid)
7. Stability of active constituent : Stable to weak acid and oxidizing agent/
Unstable to strong acid, strong/weak base, reducing agent and acid salt
8. Solubility : Slightly soluble in hot water (100 °C), slightly soluble in cold water (25 °C), insoluble in ethanol, methanol, 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 = 0.022 mg/ml) (standard vitamin C = 0.14 mg/ml)
 - Metal chelating (MC₅₀ = 8244916.2 mg/ml) (standard EDTA= 0.058 mg/ml)

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- Tyrosinase inhibition (IC₅₀ = 0.114 mg/ml) (standard kojic acid = 0.036 mg/ml)
11. Animal / human performance : -
test
12. Safety⁽³⁾ : Cell viability 92.30% at 0.1 mg/ml in human skin fibroblasts (standard vitamin C = 140.21%)/safe for topical use/ LD₅₀ > 5000 mg/kg in Wistar rats by oral administration/ Considered as practically nontoxic
13. Pharmaceutical, food supplement or cosmetic applications : Food supplements for tonics and menstruation pain reduction in women
14. Recommended concentrations in the product : 3.47 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. Lim T.K. (2012). *Piper retrofractum*. Edible Medicinal and Non-medicinal Plants. (pp. 351-357). Australia: Springer Netherlands.
2. Negi R., Sharma S.K., Gaur R., Bahadur A. and Jelly P. Efficacy of ginger in the treatment of primary dysmenorrhea: A systematic review and meta-analysis. *Cureus*, 2021; 13(3): e13743.
3. Manose In-house Project “The Development of Extract from Lanna Medicinal Plant Recipe for Tonics and the Relief of Menstruation Pain in Women (YLMP-2)” Manose Health and Beauty Research Center (www.manose.co), unpublished, 2007.