

Specification : Lanna Medicinal Plant Extract for Cancer Patients No.1/

สารสกัดจากตำรับยาสมุนไพรล้านนาสำหรับผู้ป่วยโรคมะเร็ง สูตรที่ 1

(Manose RM-0101)

(Application : An active ingredient for food supplements in cancer patients /

สารสำคัญในผลิตภัณฑ์เสริมอาหารสำหรับผู้ป่วยโรคมะเร็ง)

1. Name of the raw material : Lanna Medicinal Plant Extract for Cancer Patients No.1
2. Active components : Alkaloid, sucrose, glucose, tannin and flavonoid⁽¹⁾
3. Common and scientific name/ Family of the plant : Extracts from medicinal plants such as Golden shower⁽²⁾ (*Cassia fistula* L./ CAESALPINIACEAE) and Winged bean⁽³⁾ (*Psophocarpus tetragonolobus* (Linn) DC./ FABACEAE)
4. Physical appearance : Light brown powder with specific odor
5. pH : 5 (1% in distilled water)
6. Standardization : HPLC fingerprint using kaempferol, ellagic acid and epicatechin as markers⁽³⁾
7. Stability of active constituent : Stable to strong/weak acid, oxidizing agent and acid salt/ Unstable to strong/weak base and reducing agent
8. Solubility : Insoluble in hot water (100 °C) and cold water (25 °C), 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 : - Antioxidant DPPH radical scavenging (SC₅₀ = 0.030 mg/ml) (standard vitamin C = 0.20 mg/ml)⁽¹⁾
- Anti-proliferative effect IC₅₀ = 3.14, 0.37, 101.33 and 261.73 µg/ml in HeLa, HepG2, HT-29 and KB,

respectively (standard cisplatin = 3.42, 5.52, 1.12 and 3.32 µg/ml in HeLa, HepG2, HT-29 and KB, respectively)⁽¹⁾

- 11. Animal / human performance test : -
- 12. Safety : Passed acute toxicity (LD₅₀) in rat with the dose of more than 2 g/kg body weight⁽¹⁾
- 13. Pharmaceutical, food supplement or cosmetic applications : Food supplements for cancer patients
- 14. Recommended concentrations in the product : 9.1 mg/kg body weight 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. Manose In-house Project “The Development of Extract from Lanna Medicinal Plant Recipe for Cancer Patients” Manose Health and Beauty Research Center (www.manose.co), unpublished, 2007.
2. Kaur S., Pandit K., Chandel M. and Kaur S. Antiproliferative and apoptogenic effects of *Cassia fistula* L. n-hexane fraction against human cervical cancer (HeLa) cells. Environ Sci Pollut Res Int, 2020; 27(25): 32017-32033.
3. Manosroi A., Akazawa H., Pattamapun K., Kitdamrongtham W., Akihisa T., Manosroi W. and Manosroi J. Potent anti-proliferative effects against oral and cervical cancers of Thai medicinal plants selected from the Thai/Lanna medicinal plant recipe database “MANOSROI III”, Pharmaceutical Biology, 2015; 53(7): 1075-1081.