

Specification : Lanna Medicinal Plant Extract for Cancer Patients No.3/

สารสกัดจากตำรับยาสมุนไพรล้านนาสำหรับผู้ป่วยโรคมะเร็ง สูตรที่ 3

(Manose RM-0103)

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

สารสำคัญในผลิตภัณฑ์เสริมอาหารสำหรับผู้ป่วยโรคมะเร็ง)

1. Name of the raw material : Lanna Medicinal Plant Extract for Cancer Patients No.3
2. Active components : Flavonoid, xanthone, alkaloid, glucose, sucrose and tannin
3. Common and scientific name/ Family of the plant : Extracts from edible and medicinal plants⁽¹⁾ such as White Siris (*Albizia procera* (Roxb.) Benth)/ FABACEAE and Rough-leaf Stem (*Ficus hispida* L.f.)/ MORACEAE
4. Physical appearance : Brown powder with specific odor
5. pH : 4.60 (1% in distilled water)
6. Standardization : HPLC fingerprint using isoflavones, coumarins and caffeoylquinic acids⁽²⁾ as markers
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 : Sparingly soluble in hot water (100 °C), slightly soluble in cold water (25 °C) and 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⁽²⁻³⁾ : - Antioxidant DPPH radical scavenging (SC₅₀ = 0.046 mg/ml) (standard vitamin C = 0.20 mg/ml)

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- Anti-proliferative effect with IC_{50} = 4.58, 66.91 and 708.44 $\mu\text{g/ml}$ in KB, HeLa and HepG2, respectively (standard cisplatin = 3.32, 3.42 and 5.52 $\mu\text{g/ml}$ in KB, HeLa and HepG2, respectively)
11. Animal / human performance test : -
12. Safety : Passed acute toxicity (LD_{50}) in rat with the dose of more than 2 g/kg body weight
13. Pharmaceutical, food supplement or cosmetic applications : Tonic food supplements for cancer patients
14. Recommended concentrations in the product : 9.8 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Lanna Medicinal Plant Recipe for Cancer Patients (CE029)” Manose Health and Beauty Research Center (www.manose.co), unpublished, 2007.
2. Zhang J., Zhu W-F., Xu J., Kitdamrongtham W., Manosroi A., Manosroi J., Tokuda H., Abe M., Akihisa T. and Feng F. Potential cancer chemopreventive and anticancer constituents from the fruits of *Ficus hispida* L.f. (Moraceae). Journal of Ethnopharmacology, 2018; 214: 37-46.
3. El-Hallouty S.M., Afifi A.G., El-Zohiry D.A. and Batawi A.H. Cytotoxic study of *Albizia procera* and *Ailanthus altissima* extracts on human tumor cell lines. Biosc. Biotech. Res. Comm., 2021; 14(2).