

Specification : Lanna Medicinal Plant Extract for Liver Cancer Patients No.2/

สารสกัดจากตำรับยาสมุนไพรล้านนาสำหรับผู้ป่วยโรคมะเร็งตับ

สูตรที่ 2 (Manose RM-0102)

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

สารสำคัญในผลิตภัณฑ์เสริมอาหารสำหรับผู้ป่วยโรคมะเร็งตับ)

1. Name of the raw material : Lanna Medicinal Plant Extract for Liver Cancer Patients No.2
2. Active components : Alkaloid, sucrose, glucose and tannin
3. Common and scientific name/ Family of the plant : Extracts from edible and medicinal plants⁽¹⁾ such as Silk Tree (*Albizia chinensis*)/ LEGUMINOSAE-MIMOSOIDEAE and Laurel Clock Vine (*Thunbergia laurifolia* Lindl.)/ ACANTHACEAE
4. Physical appearance : Dark brown powder with specific odor
5. pH : 6 (1% in distilled water)
6. Standardization : HPLC fingerprint using Albizosides D and E⁽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 : 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⁽³⁾ : - Antioxidant DPPH radical scavenging (SC₅₀ = 0.025 mg/ml) (standard vitamin C = 0.20 mg/ml)

- Anti-proliferative effect $IC_{50} = 0.50 \mu\text{g/ml}$ in HepG2
(standard cisplatin = $5.52 \mu\text{g/ml}$ in HepG2)

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 liver cancer patients
14. Recommended concentrations in the product : 15.2 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Medicinal Plant Recipe for Liver Cancer Patients (N037)” Manose Health and Beauty Research Center (www.manose.co), unpublished, 2007.
2. Liu R., Ma S-G., Liu Y-X., Yu S-S., Chen X-G. and Zhang J-J. Albizosides D and E, Two new cytotoxic triterpene saponins from *Albizia chinensis*. Carbohydrate Research, 2010; 345(13): 1877-1881.
3. Manosroi M., Akazawa H., Kitdamrongtham W., Akihisa T., Manosroi W. and Manosroi J. Potent antiproliferative effect on liver cancer of medicinal plants selected from the Thai/Lanna medicinal plant recipe database “MANOSROI III”. Evid. Based Complement. Alternat. Med., 2015; 2015: 397181.