

Specification : Sappan wood extract / สารสกัดฝาง

(Manose RM-0009)

(Application : An active ingredient for anti-cancer food supplements and

anti-wrinkle cosmetics / สารสำคัญในผลิตภัณฑ์เสริมอาหารต้านมะเร็ง

และผลิตภัณฑ์เครื่องสำอางต้านริ้วรอย)

1. Name of the raw material : Sappan wood extract
2. Active components : Steroids, triterpenoids, tannins and flavonoids⁽¹⁾
3. Common and scientific name/ Family of the plant : Sappan wood (*Caesalpinia sappan* L.)/
LEGUMINOSAE-CAESALPINOIDEAE
4. Physical appearance : The solid extract is dark red-orange with specific herbal odor / The 1 % extract in propylene glycol is orange liquid with specific herbal odor
5. pH : 6 - 7
6. Standardization : HPLC fingerprint using brazilin as a marker⁽¹⁾
7. Solubility : Soluble in water and ethanol
8. 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
9. Biological activities : Anti-cancer and anti-oxidative activities (DPPH and chelating activity)⁽¹⁾
10. Animal / human performance test : Anti-cancer and anti-oxidative activity in animals⁽¹⁻²⁾

-
11. Safety : No skin irritation in human volunteers / Passed the subchronic toxicity test in rats when orally administered with the extract at 1 g/kg BW daily for 90 days
12. Pharmaceutical, food supplement or cosmetic applications : Anti-cancer food supplements and anti-wrinkle cosmetics
13. Recommended concentrations in the product : 0.001 - 0.05 % w/w (for the solid extract) and 0.1 - 5 % w/w (for the 1 % extract in propylene glycol)
14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

References

1. Kitdamrongtham W, Manosroi A, Akazawa H, Gidado A, Steinrut P, Manosroi W, Lohcharoenkal W, Akihisa T, Manosroi J. (2013) Potent anti-cervical cancer activity: Synergistic effect of Thai medicinal plants in recipe N040 selected from the MANOSROI III database. **Journal of Ethnopharmacology**. 149 : 288-296 (Corresponding author and co-authors are from Manose Health and Beauty Research Center)
2. Badami S, Moorkoth S, Rai SR, Kannan E and Bhojraj S, (2003) Antioxidant activity of *Caesalpinia sappan* heartwood. **Biological and Pharmaceutical Bulletin**. 26(11) : 1534-1537