

Specification : Asiatic Bitter Yam Extract/ สารสกัดกลอย (Manose RM-0092)

(Application : An active ingredient for female hormone replacement food supplements and anti-aging cosmetics / สารสำคัญในผลิตภัณฑ์เสริมอาหารสำหรับทดแทนฮอร์โมนในเพศหญิงและเครื่องสำอางชะลอวัย)

1. Name of the raw material : Asiatic Bitter Yam Extract
2. Active components : Alkaloids, saponins, tannins, glycosides, phenolic compounds and diosgenin⁽¹⁾
3. Common and scientific name/ Family of the plant : Asiatic Bitter Yam (*Dioscorea hispida* Dennst. var. *hispida*)/ DIOSCOREACEAE
4. Physical appearance : Brownish solid with herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using diosgenin as a marker
7. Stability of active constituent : Diosgenin is stable at room temperature and light protection condition
8. Solubility : Soluble in ethanol
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 : Anti-oxidant⁽¹⁾, anti-inflammatory⁽¹⁾, analgesic⁽¹⁾, anti-microbial⁽¹⁾, anti-cancer⁽¹⁾, anti-diabetic⁽¹⁾ and estrogenic⁽²⁾ activity
11. Animal / human performance test : Estrogenic activity in animals⁽²⁾

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12. Safety : No skin irritation in human volunteers / LD₅₀ > 5 g/kg BW in rats
13. Pharmaceutical, food supplement or cosmetic applications : Anti-oxidant, anti-inflammatory, analgesic, anti-microbial, anti-aging in cosmetics/ anti-cancer, anti-diabetic and female hormone replacement in food supplements
14. Recommended concentrations in the product : 0.1-1.0% w/w in cosmetics and food supplements
15. Storage : Keep in tight and light protection container at room temperature
16. Precautions : None
17. Cost per kg : Please request

References

1. Miah MM, Das P, Ibrahim Y, Shajib MS, Rashid MA. (2018) *In vitro* antioxidant, antimicrobial, membrane stabilization and thrombolytic activities of *Dioscorea hispida* Denst. **European Journal of Integrative Medicine**. 19: 121-127.
2. Zeng M, Zhang L, Li M, Zhang B, Zhou N, Ke Y, Feng W, Zheng X. (2018) Estrogenic effects of the extract from the Chinese Yam (*Dioscorea opposita* Thunb.) and its effective compounds *in vitro* and *in vivo*. **Molecules**. 23(2): 11.
3. Manose In-house Project “The Development of Extract from Thai Medicinal Plants for Female Hormone Replacement”, Manose Health and Beauty Research Center (www.manose.co), unpublished, 2015.