

Specification : Paprika extract loaded nanovesicular suspension /
สารสกัดพริกเก็บกักในอนุภาคขนาดนาโน
(Manose RM-0001)

(Application : An active ingredient for analgesic / anti-inflammatory and
hair growth promotion cosmetic products / สารสำคัญในผลิตภัณฑ์สมุนไพร
เพื่อบรรเทาอาการปวด / ต้านอักเสบ และเครื่องสำอางกระตุ้นการงอกของเส้นผม)

1. Name of the raw material : Paprika extract loaded nanovesicular suspension
2. Active components : Paprika extract 2 %
(capsaicin 0.05 %)⁽¹⁾
3. Common and scientific name/ Family of the plant : Paprika (*Capsicum frutescens* L.)/
SOLANACEAE
4. Physical appearance : Light brownish turbid suspension with specific herbal odor
5. pH : 4
6. Standardization : HPLC fingerprint using capsaicin as a marker

7. Solubility : Miscible and dispersable in water and ethanol
8. Microbial contamination : No pathogenic microorganism with less than 1,000 cfu/g of bacteria, yeast and fungi which is conformed to the Thai FDA regulation
9. Biological activities : Analgesic⁽²⁾, anti-inflammation⁽³⁾, increase blood circulation⁽⁴⁾ and anti-cancer⁽⁵⁾
10. Animal/ human performance test : Analgesic and anti-inflammation in human volunteers⁽²⁾
11. Safety : No skin irritation in human volunteers
12. Pharmaceutical, food supplement or cosmetic applications : Analgesic / anti-inflammatory and hair growth promotion in herbal health and cosmetic products
13. Recommended concentrations in the product : 10-20 % w/w in cream / gel / lotion

14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : For external use only and avoid contacting with eyes or soft tissue due to irritation. Do not use in children under 6 years old
16. Cost per kg : Please request

References

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3. Zimmer AR, Leonardi B, Miron D, Schapoval E, Oliveira JR, Gosmann G. (2012) Antioxidant and anti-inflammatory properties of *Capsicum baccatum*: From traditional use to scientific approach. **J. Ethnopharmacol**. 2012, 139, 228–233
4. Liang YT, Tian XY, Chen JN, Peng C, Ma KY, Zuo Y, *et al.* (2013) Capsaicinoids lower plasma cholesterol and improve endothelial function in hamsters. **Eur J Nut.r** 52(1): 379-388
5. Lin CH, Lu WC, Wang CW, Chan YC, Chen MK. (2013) Capsaicin induces cell cycle arrest and apoptosis in human KB cancer cells. **BMC Complementary and Alternative Medicine**. 2-9