

Specification : Purple glutinous rice extract loaded in Nanovesicles /

สารสกัดข้าวเหนียวดำเก็บกักในอนุภาคนาโน

(Manose RM-027)

(Application : An active ingredient for anti-wrinkle / whitening cosmetic and food supplements / สารสำคัญในผลิตภัณฑ์เครื่องสำอางต้านริ้วรอย / ช่วยให้ผิวขาวและผลิตภัณฑ์เสริมอาหาร)

1. Name of the raw material : Purple glutinous rice extract loaded in nanovesicles
2. Active components : Purple glutinous rice extract 1 % (anthocyanins)
3. Common and scientific name/ Family of the plant : Purple glutinous rice (*Oryza sativa* L.)/ GRAMINEAE
4. Physical appearance : Turbid light purple suspension with specific herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using anthocynins as a marker

7. Solubility : Soluble in 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-oxidant (DPPH, lipid peroxidation and chelating activity)<sup>(1)</sup> and whitening effect by tyrosinase inhibition<sup>(1)</sup>
10. Animal / human performance test : Anti-wrinkle and skin whitening in human volunteers<sup>(1)</sup>
11. Safety : No skin irritation in human volunteers
12. Pharmaceutical, food supplement or cosmetic applications : Anti-wrinkle/ whitening cosmetic and food supplement products
13. Recommended concentrations in the product : 1-5 % w/w

14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

## Reference

1. Manosroi A, Chankhampan C, Kumguan K, Manosroi W, Manosroi J. (2012) Anti-aging performance evaluation of cream containing niosomes loaded with the purple glutinous rice (*Oryza sativa* Linn.) *extract*. *International Journal of Cosmetic Science*. 42 : 622 - 631  
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