

Specification of Date Palm fruit extract (Manose RM-023)

1. **Name of the raw material** : Date Palm fruit extract
2. **Active components** : Anthocyanins, phenolic acids, sterols, carotenoids, procyanidins and flavonoids⁽¹⁾
3. **Scientific name of the plant / Family** : Date Palm (*Phoenix dactylifera* L.)/ PALMAE
4. **Physical appearance of the raw material** : Brownish solid with specific odor
5. **pH of the raw material** : 4
6. **Standardization of the raw material** : HPLC fingerprint using gallic acid as a marker⁽¹⁾
7. **Solubility** : Soluble in water and ethanol
8. **Microbial contamination** : None
9. **Biological activities** : Anti-oxidant⁽²⁾, serum lipid reduction⁽³⁾ and estrogenic effect
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Anti-oxidant and serum lipid reduction in human volunteers⁽³⁾
12. **Pharmaceutical, food supplement or cosmetic applications**
: Female hormone replacement food supplement products for menopause women, food supplement products for dyslipidemia patient and anti-aging cosmetics
13. **Recommended concentrations in the product (%)**
: 0.1-5 %
14. **Storage** : Keep in tight and light protection container at room temperature
15. **Precautions (if any)** : None
16. **Cost per kg** : -

References

1. Baliga MS, Vittadas Baliga BR, Kandathil SM, Bhat HP, Vayalil PK. A review of the chemistry and pharmacology of the date fruits (*Phoenix dactylifera* L.). Food Research International 2011, 44: 1812-1822.
2. Vayalil PK. Antioxidant and antimutagenic properties of aqueous extract of date fruit (*Phoenix dactylifera* L. Arecaceae). Journal of Agricultural and Food Chemistry 2002, 50: 610-617.
3. Rock W, Rosenblat M, Borochoy-Neori H, Volkova N, Judeinstein S, Elias M, Aviram M. Effects of date (*Phoenix dactylifera* L., Medjool or Hallawi Variety) consumption by healthy subjects on serum glucose and lipid levels and on serum oxidative status: a pilot study. Journal of Agricultural and Food Chemistry 2009, 57: 8010-8017.