

**Specification of White Kwao Krua extract (Manose RM-004)**

1. **Name of the raw material** : White Kwao Krua rhizome extract
2. **Active components** : Flavonoids, miroestrol, phytoestrogen, puerarin
3. **Scientific name of the plant / Family** : White Kwao Krua (*Pueraria* var. *mirifica* (Airy Shaw & Suvat.))/ LEGUMINOSAE-PAPILIONOIDEAE
4. **Physical appearance of the raw material** : Brownish solid with specific odor
5. **pH of the raw material** : 3
6. **Standardization of the raw material** : HPLC fingerprint using puerarin as a marker<sup>(1)</sup>
7. **Solubility** : Soluble in organic solvents such as ethanol and ethyl acetate
8. **Microbial contamination** : None
9. **Biological activities** : Anti-oxidant, whitening, estrogenic effect
10. **Safety** : No skin irritation in human volunteers
11. **Animal / human performance test** : Female hormone replacement in human volunteers<sup>(2)</sup>
12. **Pharmaceutical, food supplement or cosmetic applications**  
: Anti-wrinkle, anti-aging, whitening cosmetic products and female hormone replacement food supplement products for menopause women
13. **Recommended concentrations in the product (%)**  
: 0.5-10 %
14. **Storage** : Keep in tight and light protection container at room temperature
15. **Precautions (if any)** : Must not use in children under 12 years old and pregnant women
16. **Cost per kg** : -

## References

1. Ingham JL, Tahara S, Pope GS. Chemical components and pharmacology of the rejuvenating plant *Pueraria mirifica*. In: Keung WM, ed. *Pueraria: The genus Pueraria*. London: Taylor & Francis, 2002: 97–118.
2. Muangman V, Cherdshewasart W. Clinical trial of the phytoestrogen- rich herb, *Pueraria mirifica* as a crude drug in the treatment of symptoms in menopausal women. *Siriraj Medical Journal* 2001, 53(5): 300–310.