

Specification : Aurel Clock Vine Leaf Extract / สารสกัดใบรางจืด  
(Manose RM-0046)

(Application : An active ingredient for anti-aging and whitening cosmetics/  
สารสำคัญในผลิตภัณฑ์เครื่องสำอางชะลอวัยและช่วยให้ผิวขาว)

1. Name of the raw material : Aurel Clock Vine leaf extract
2. Active components : Alkaloids, carotenoids, triterpenes, steroids and xanthones
3. Common and scientific name/ Family of the plant : Aurel Clock Vine (*Thunbergia laurifolia* Lindl.)/  
ACANTHACEAE
4. Physical appearance : Dark brownish semi-solid with herbal odor
5. pH : 4.63
6. Standardization : HPLC fingerprint using caffeic acid as a marker
7. Solubility : Soluble in both hot and cold water
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 : - Antioxidative activity by DPPH radical scavenging with the  $SC_{50}$  value of  $62.51 \pm 0.31$  mg/ml (vitamin C =  $0.03 \pm 0.00$  mg/ml)  
- Tyrosinase inhibition activity with the  $IC_{50}$  value of  $0.03 \pm 0.00$  mg/ml (Kojic acid =  $0.002 \pm 0.00$  mg/ml)
10. Animal/ human performance test : - Serum containing 2% w/w of the Aurel Clock Vine extract exhibited whitening of melanin synthesis reduction in human volunteers after 3 weeks of application

- Serum containing 2% w/w of the Aurel Clock Vine extract exhibited anti-aging of wrinkle reduction in human volunteers after 3 weeks of application

11. **Safety** : Serum containing 2% w/w of the Aurel Clock Vine extract gave no irritation on human skin by the 4h closed patch test
12. **Pharmaceutical, food supplement or cosmetic applications** : Anti-aging and whitening cosmetics
13. **Recommended concentrations in the product** : 0.5-5% w/w
14. **Storage** : Keep in tight and light protection container at room temperature
15. **Precautions** : None
16. **Cost per kg** : Please request