

Specification : Whitening Serum for Skin Lightening (Manose PR-0027)

(Application : For skin lightening)

1. Name : Whitening Serum
2. Active Compositions : Mixed Thai medicinal plant extracts including Bitter Melon (*Momordica charantia* L.) and Indian Gooseberry (*Phyllanthus emblica* L.)
3. FDA Registration No. : In the process of cosmetic product notification with Thai FDA
4. Characteristics
 - Physical appearance : Light yellow viscous liquid
 - pH : 6.93±0.01
 - Odor : Light specific herbal odor
5. Standardization : HPLC fingerprint using gallic acid as a marker
6. Biological activities :
 - *In vitro* tyrosinase inhibition activity with the IC₅₀ value of 0.66±0.22 mg/ml which is 0.33 time of kojic acid (IC₅₀ value = 0.02±0.00 mg/ml)
 - Melanin inhibition activity in melanoma (B16F10) of 26.24±0.08% which is 0.45 time of kojic acid (57.26±2.43%)
7. Clinical Performance : -
8. Microbial Contamination : No pathogenic microorganism contamination. The amounts of the aerobic bacteria, yeast and fungi are less than 1,000 cfu/g which is in the acceptable range of Thai FDA, Ministry of Public Health
9. Safety Evaluation :
 - No cytotoxicity on human skin fibroblasts at 1 mg/ml with the cell viability of 98.14±5.33%
 - No skin irritation in human volunteers by the 4h closed patch test

- 10. **Stability** : Physically stable by the heating-cooling process (45 and 4 °C) of 6 cycles
- 11. **Shelf life at 30 °C** : 2 – 5 years
- 12. **Indication and use** : Apply and rub gently daily on the face, neck and jawline after cleansing
- 13. **Packaging and Storage** : 50 grams in a bottle / keep in dry and cool place protected from light
- 14. **Precaution** : Rinse off and stop using when there is any undesirable effect
- 15. **Cost** : Please request

Reference :

Manose In-house Project “Development of whitening serum containing herbal extracts”
Manose Health and Beauty Research Center (www.manose.co), unpublished, 2022.