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Specification : Emblica Weis Serum (Manose PR-0027)

(Application : For skin lightening)

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1. Name : Emblica Weis 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. : 50-1-6600019550
4. Characteristics
  - Physical appearance : Light yellowish 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 IC<sub>50</sub> value of 0.66±0.22 mg/ml which is 0.33 time of kojic acid (IC<sub>50</sub> 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 : Whitening effect at 11.61±8.11% and wrinkle reduction at 9.22±5.66% after 4 weeks application
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 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 face after cleansing in the morning and evening
- 13. **Packaging and Storage** : 20 ml 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Manose Health and Beauty Research Center (www.manose.co), unpublished, 2022.