

## Product Specification : Chebula Shot Drink (Manose PS-0003)

(Application : For Anti-aging and Rejuvenation)

- 
1. Name : Chebula Shot Drink
  2. Active Compositions : Mixed extracts from Thai medicinal plants including Turmeric (*Curcuma longa* Linn.), Chebulic Myrobalans (*Terminalia chebula* Retz.), and Date Palm (*Phoenix dactylifera*)
  3. Thai FDA Registration No. : In the process of FDA registration as a food supplement
  4. Biological Activities of the Extract :
    - Antioxidation by DPPH free radical : 0.04±0.00 mg/ml (ascorbic acid = scavenging (SC<sub>50</sub>) 0.07±0.00 mg/ml)
    - Antioxidation by lipid peroxidation : 46.43±0.29 mg/ml (ascorbic acid = inhibition (IPC<sub>50</sub>) 0.08±0.01 mg/ml)
    - Whitening by tyrosinase inhibition : 6.86±0.48 mg/ml (kojic acid = 0.04±0.01 (IC<sub>50</sub>) mg/ml)
    - Anti-inflammation by inhibition of : 3.42±0.48 mg/ml (diclofenac protein denaturation (IC<sub>50</sub>) diethylammonium = 0.91±0.06 mg/ml)
    - Anti-inflammation by inhibition of : 35.07±1.81% (triamcinolone acetone = nitric oxide synthesis (%) 30.09±1.20%) at 0.05 mg/ml
    - Whitening by melanogenesis : 22.98±7.31% (kojic acid = 27.72±7.62%) inhibition in B16F10 cell lines (%) at 1 mg/ml
    - Whitening by tyrosinase inhibition in : 9.58±5.85% (kojic acid = 26.67±9.96%) B16F10 cell lines (%) at 1 mg/ml
  5. Characteristics of the Product :
    - Physical appearance : Light brownish liquid
    - pH : 4.32
    - Odor : Herbal odor
    - Taste : Sweet
  6. Biological Activities of the Product :
    - Antioxidation by DPPH free radical : 2.62±0.01 mg/ml (ascorbic acid = scavenging (SC<sub>50</sub>) 0.01±0.01 mg/ml)

- Whitening by tyrosinase inhibition (IC<sub>50</sub>) : 10.98±1.33 mg/ml (kojic acid = 0.04±0.01 mg/ml)
- Anti-inflammation by inhibition of protein denaturation (IC<sub>50</sub>) : 4.20±0.65 mg/ml (diclofenac diethylammonium = 0.42±0.04 mg/ml)
- Anti-inflammation by inhibition of nitric oxide synthesis (%) : 40.63±2.03% at 50 mg/ml (triamcinolone acetonide = 33.02±0.53%) at 5 mg/ml
- Whitening by melanogenesis inhibition in B16F10 cell lines (%) : 24.39±4.47% at 10 mg/ml (kojic acid = 27.72±7.62% at (mg/ml)
- Whitening by tyrosinase inhibition in B16F10 cell lines (%) : 1.92±5.20% at 10 mg/ml (kojic acid = 26.67±9.96% at 1 mg/ml)

- 7. Dosage form** : One bottle (42 ml) contains 200 mg of the extract
- 8. Indication** : Anti-aging / free radical scavenging/ rejuvenation
- 9. Dose per Day** : Take 1 bottle daily
- 10. Stability** : Physical and chemical stability at 4, 30 and 45°C for 3 months
- 11. Microbial Contamination** : None
- 12. Shelf life** : 5 years
- 13. Standardization** : HPLC fingerprint using gallic acid as a marker
- 14. Safety Evaluation** : No toxicity of the extract with the LD<sub>50</sub> of more than 5g/kg body weight in Wistar rats (according to OECD guideline)
- 15. Packaging and Storage** : A clear glass bottle covered with tight aluminium cap/ keep in cool place and protected from light



**Chebula Shot Drink**