
Specification : Broken Bones Tree Extract / สารสกัดฝักเพกา
(Manose RM-0033)

(Application : An active ingredient for whitening and anti-aging
cosmetic products / สารสำคัญในผลิตภัณฑ์เครื่องสำอางช่วยให้ผิวขาวและชะลอวัย)

1. Name of the raw material : Pod of Broken Bones Tree Extract
2. Active components : Alkaloids, flavonoids, glycosides and tannins
3. Common and scientific name/
Family of the plant : Broken Bones Tree (*Oroxylum indicum* (L.)
Kurz.) / BIGNONIACEAE E
4. Physical appearance : Greenish-brown semi solid with specific herbal
odor
5. pH : 4.29
6. Standardization : HPLC fingerprint using tannin as a marker
(retention time = 2.798 mins.)
7. Solubility : Sparingly soluble in hot and cold water,
slightly soluble in methanol, soluble in
ethanol and practically insoluble in glycerin,
propylene glycol and mineral oil

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8. **Microbial contamination** : No pathogenic microorganism with less than 1,000 cfu/g of the total plate count 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 0.16 ± 0.03 mg/ml (ascorbic acid = 0.02 ± 0.00 mg/ml)
- Tyrosinase inhibition activity with the IC_{50} value of 0.94 ± 0.05 mg/ml (kojic acid = 0.04 ± 0.01 mg/ml)
10. **Animal / human performance test** : The product containing 1%w/w extract exhibited whitening effect by melanin synthesis reduction in human volunteers after 4 weeks of application
11. **Safety** : The product containing 1% w/w extract exhibited no irritation on human volunteer skin by the 4h closed patch test
12. **Pharmaceutical, food supplement or cosmetic applications** : Whitening and anti-aging cosmetic products

13. Recommended concentrations in the product : 0.5-1.5 % w/w
14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request