

Specification : Anti-hair Loss and Hair Growth Promotion Mixed Thai Medicinal
Plant Extract / สารสกัดสมุนไพรไทยผสมป้องกันผมร่วง/ช่วยให้ผมงอก
(Manose RM-0072)

(Application : An active ingredient for anti-hair loss and hair growth promotion products /
สารสำคัญในผลิตภัณฑ์ป้องกันผมร่วง/ช่วยให้ผมงอก)

1. Name of the raw material : Anti-hair Loss and Hair Growth Promotion Mixed Thai Medicinal Plant Extract
2. Active components : Alkaloids, phenolic compounds and flavonoids⁽¹⁾
fatty acids, isoflavones, phytosterols and saponins⁽²⁾
3. Common and scientific name/ Family of the plant : Sorghum (*Setaria italica* (L.) P. Beauv)/ GRAMINEAE
and soybean (*Glycine max* (L.) Merr.)/ LEGUMINOSAE-
PAPILIONOIDEAE
4. Physical appearance : Brownish-yellow solid with specific herbal odor⁽³⁾
5. pH : 5⁽³⁾
6. Standardization : HPLC fingerprint using genistein⁽²⁾ and linoleic acid as
a marker (linoleic acid content = 0.28%w/w)⁽³⁾
7. Solubility : Soluble in ethanol⁽³⁾
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⁽³⁾
9. Biological activities : Soybean extract, one of the composition in RM-0072
showed stimulation of dermal papillae proliferation
and anagen induction in C57BL/6 mice.⁽⁴⁾
10. Animal / human performance test : -
11. Safety : Soybean extract, one of the composition in RM-0072
showed no cytotoxicity in keratinocytes (HaCaT) cells

at 0.1-2 mg/ml.⁽⁵⁾

12. Pharmaceutical, food supplement or cosmetic applications : Anti-hair loss and hair growth promotion products
13. Recommended concentrations in the product : 0.01-5 % w/w
14. Storage : Keep in tight and light protection container at room temperature
15. Precautions : None
16. Cost per kg : Please request

References

1. Suma PF, Urooj A. (2012) Antioxidant activity of extracts from foxtail millet (*Setaria italica*). Journal of Food Science and Technology. 49(4): 500-504.
2. Kanchana P, Santha ML, Raja KD. (2016) A review on *Glycine max* (L.) Merr. (soybean). World Journal of Pharmacy and Pharmaceutical Sciences. 5(1): 356-371.
3. Manose In-house Project “Mixed Thai Medicinal Plant Extracts for Anti-hair Loss and Hair Growth Promotion”, 2022, Unpublished Report, www.manose.co
4. Jeon HY, Kim SH, Kim C, Shin HJ, Seo DB, Lee SJ. (2011). Hair growth promoting effect of black soybean extract *in vitro* and *in vivo*. Korean Journal of Food Science and Technology. 43: 747-753.
5. Yang JC, Kim BA. (2016). *In vivo* and *in vitro* hair growth promotion effects of extract from *Glycine soja* Siebold et Zucc. Journal of Applied Biological Chemistry. 59: 137-143.