

Specification : Soybean Extract / สารสกัดถั่วเหลือง
(Manose RM-0030)

(Application : An active ingredient for food supplements for menopausal women (hormone replacement), anti-cancer, anti-diabetic and anti-dyslipidemia / hair growth promotion, anti-wrinkle and anti-aging cosmetics / สารสำคัญในผลิตภัณฑ์เสริมอาหารทดแทนฮอร์โมนเพศหญิง สำหรับสตรีวัยทอง ต้านมะเร็ง เบาหวาน ไขมันในเลือดสูงและผลิตภัณฑ์เครื่องสำอาง ช่วยให้ผมงอก ต้านริ้วรอยและชะลอวัย)

1. Name of the raw material : Soybean extract
2. Active components : Fatty acids, isoflavones, phytosterols and saponins⁽¹⁾
3. Common and scientific name/ Family of the plant : Soybean (*Glycine max* (L.) Merr.)/ LEGUMINOSAE-PAPILIONOIDEAE
4. Physical appearance : Yellowish-brown with specific herbal odor
5. pH : 5
6. Standardization : HPLC fingerprint using genistein⁽²⁾ and linoleic acid as a marker. It contains 0.28% w/w of linoleic acid
7. Solubility : Soluble in ethanol
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 : Anti-oxidative⁽²⁾, anti-cancer⁽³⁾, blood glucose and serum lipid reduction⁽⁴⁾ and estrogenic activities⁽⁵⁾
10. Animal / human : Anti-cancer⁽³⁾, blood glucose and serum lipid

performance test	reduction in animals ⁽⁴⁾ and female hormone replacement in human volunteers ⁽⁶⁾
11. Safety	: No skin irritation in human volunteers
12. Pharmaceutical, food supplement or cosmetic applications	: Food supplement products for menopausal women, anti-cancer, diabetic and dyslipidemia and hair growth promotion, anti-wrinkle and anti-aging cosmetic products
13. Recommended concentrations in the product	: 0.1-5 % w/w
14. Storage	: Keep in tight and light protection container at room temperature
15. Precautions	: None
16. Cost per kg	: Please request

References

1. 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
2. Afaf A, Abdel-Had Y. (2014) Evaluation of the antioxidant activity and the acute oral toxicity of three plant extracts on albino mice. **Middle East Journal of Applied Sciences**. 4(2): 207-16
3. Barnes S, Grubbs C, Setchell S, Carlson J. (1990) Soybeans inhibit mammary tumors in models of breast cancer, in Pariza.
4. Jibu T, Subha Mary Varghese EJ. (2012) Antidiabetic and antihyperlipidemic activity of the extracts of the seeds of *Glycine max* (L) in streptozotocin induced diabetic mice. **Drug Invention Today**.

5. Morgan HE, Dillaway D, Edwards TM. (2014) Estrogenicity of Soybeans (*Glycine max*) varies by plant organ and developmental Stage. **Endocrine Disruptors**. 2(1) : e28490
6. Tit DM, Bungau S, Iovan C, Cseppento DCN, Endres L, Sava C, Sabau AM, Furau G, Furan C. (2018) Effects of the hormone replacement therapy of soy isoflavones on bone resorption in post-menopause. **Journal of Clinical Medecine**. 7(10) : 297