Specification : Bitter Cucumber Fruit Extract/ สารสกัดมะระขี้นก (Manose RM-0093)

(Application : An active ingredient for anti-diabetic food supplements/
สารสำคัญในผลิตภัณฑ์เสริมอาหารลดน้ำตาลในเลือด)

1.	Name of the raw material	:	**Bitter Cucumber Fruit Extract**
2.	Active components	:	Phenolic compounds, carotenoids, triterpenoids, alkaloids, saponins and charantin[1]
3.	Common and scientific name/ Family of the plant	:	Bitter Cucumber (*Momordica charantia* L.)/ CUCURBITACEAE
4.	Physical appearance	:	Brownish solid with herbal odor
5.	pH	:	5
6.	Standardization	:	HPLC fingerprint using charantin as a marker
7.	Stability of active constituent	:	Charantin is stable at room temperature and light protection condition
8.	Solubility	:	Soluble in water and ethanol
9.	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
10.	Biological activities	:	Anti-diabetic[1], anti-cancer[1], anti-oxidant[1], anti-dementia[1], hypolipidemic[1], hypotensive[1] and anti-microbial[1] activity
11.	Animal / human performance test	:	Anti-diabetic activity in animals[2]
12.	Safety	:	No skin irritation in human volunteers / LD_{50} > 5 g/kg BW in rats

179 Moo 10 Tumbol Suthep, Mueang, Chiang Mai, Thailand 50200
Tel : 66-53-270182, 66-53-270041 / Line Id : manoseresearchcenter, manosepr
E-mail : manose.researchcenter@gmail.com, support@manose.co Website: www.manose.co

13.	**Pharmaceutical, food supplement or cosmetic applications**	:	Anti-diabetic, anti-cancer, anti-oxidant, anti-dementia, hypolipidemic, hypotensive and anti-microbial in food supplements
14.	**Recommended concentrations in the product**	:	0.1-1.0% w/w in food supplements
15.	**Storage**	:	Keep in tight and light protection container at room temperature
16.	**Precautions**	:	None
17.	**Cost per kg**	:	Please request

References

1. Gayathry KS, John JA. (2022) A comprehensive review on bitter gourd (*Momordica charantia* L.) as a gold mine of functional bioactive components for therapeutic foods. **Food Production Processing and Nutrition.** 4: 10.
2. Yousaf S, Hussain A, Rehman S, Aslam MS, Abbas Z. (2016) Hypoglycemic and hypolipidemic effects of *Lactobacillus fermentum*, fruit extracts of *Syzygium cumini* and *Momordica charantia* on diabetes induced mice. **Pakistan Journal of Pharmaceutical Sciences.** 29(5): 1535-1540.
3. Manose In-house Project "The Development of Extract from Thai Medicinal Plants for Anti-diabetic", Manose Health and Beauty Research Center (www.manose.co), unpublished, 2015.