Specification : Ma Kiang Fruit Extract / สารสกัดผลมะเกี๋ยง

(Manose RM-0011)

(Application : An active ingredient for whitening / anti-wrinkle cosmetics and food supplement products / สารสำคัญในผลิตภัณฑ์เครื่องสำอางช่วยให้ผิวขาว / ต้านริ้วรอย และผลิตภัณฑ์เสริมอาหาร)

1.	Name of the raw material	:	Ma Kiang fruit extract
2.	Active components	:	Anthocyanins, glycosides, vitamin C and flavonoids[1]
3.	Common and scientific name / Family of the plant	:	Ma Kiang (*Cleistocalyx nervosum* var. *paniala*)/ MYRTACEAE
4.	Physical appearance	:	Dark brownish solid with specific odor
5.	pH	:	4
6.	Standardization	:	HPLC fingerprint using cyanidin 3-glucoside as a marker[2]
7.	Solubility	:	Soluble in water and 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

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9.	Biological activities	:	Anti-oxidant (DPPH, lipid peroxidation and chelating activity)[1], MMP-2 (collagen degradation enzyme) inhibition[1] and whitening effect by tyrosinase inhibition[1]
10.	Animal / human performance test	:	Anti-oxidative activity in animals[3]
11.	Safety	:	No skin irritation in human volunteers
12.	Pharmaceutical, food supplement or cosmetic applications	:	Whitening / anti-wrinkle cosmetics and food supplement 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

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References

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2. Jansom C, Bhamarapravati S, Itharat A. (2008) Major anthocyanin from ripe berries of *Cleistocalyx nervosum* var. *paniala*. **Thammasat Medical Journal.** 8(3): 364-370

3. Taya S, Punvittayakul C, Chewonarin T, Wongpoomchai R. (2009) Effect of aqueous extract from *Cleistocalyx nervosum* on oxidative status in rat liver. **Thai Journal Toxicology.** 24(2): 101-105