



PHYTOGLYCOGEN

Kewpie Corporation

PHYTOGLYCOGEN is a raw material for foods and cosmetics which contains high purity phytoglycogen extracted from sweet corn and refined by our original technology .

Phytoglycogen , unlike many other polysaccharides , has heavily branched molecular structure . Its aqueous solution has low viscosity and shows a bit bluish milky color .

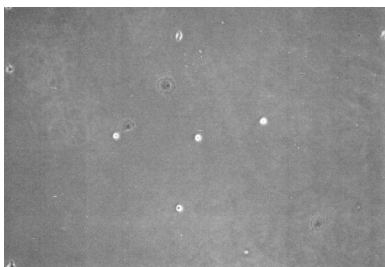
WHAT IS PHYTOGLYCOGEN ?

Glycogen is a polysaccharides which has heavily branched molecular structure . It exists in animal tissues with molecular size of $10^6 \sim 10^7$ and is known as the source of energy for the animal . In plant tissues there also exists a polysaccharides having equivalent molecular structure to glycogen in animals and this is called “phytoglycogen” .

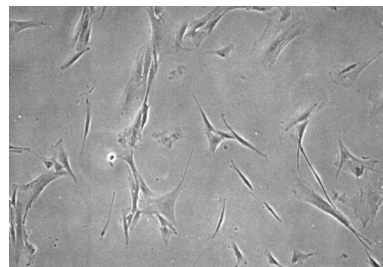
FUNCTION OF PHYTOGLYCOGEN

PHYTOGLYCOGEN tends to adhere to human cells and grow human skin fibroblasts. In other words, it has high biocompatibility.

Incubation test result (on fibroblast cells of human skin, 7 days)



Non-treated



Coated with PHYTOGLYCOGEN ($10 \mu\text{g}/\text{cm}^2$)

EXCELLENT FEATURES OF PHYTOGLYCOGEN

“Phytoglycogen” gives smooth feeling without stickiness and is an ideal moisturizing agent for various cosmetics like base cosmetics or hair-care products .

It contains plant-derived glycogen in high purity and is also recommended to be used for various dietary supplements (both foods and drinks) as resources of glycogen .

SPECIFICATIONS AND A TYPICAL ANALYSIS

	Specifications	Analysis
Identification (1)	The solution (1 : 50) has a milky white color that is a bit bluish.	Positive
(2)	When adding iodine testing solution to (1), color turns to violet – reddish purple.	Positive
(3)	When adding 15mL ethanol to 5mL of (1), white precipitation occurs.	Positive
Heavy Metals	NMT 20 ppm	NMT 20 ppm
Arsenic	NMT 2 ppm	NMT 2 ppm
Loss on Drying	NMT 10.0 %	2.3 %
Residue on Ignition	NMT 0.5 %	0.1 %
Protein	NMT 0.5 %	0.1 %
Aerobic plate counts	NMT 100 / g	60/g
Mold and Yeast	NMT 100 / g	NMT 10/g

SAFETY

No abnormality was observed by primary skin irritation test, skin sensitization test nor eye irritation test and human patch test .

STORAGE AND EXPIRY

Storage : Store at ordinary temperature and keep it away from direct sunlight, high temperature and high humidity.

Expiry : 2 years from manufacturing date. (unopened, at ordinary temperature)

PACKING

1 kg (in aluminum pouch) × 1 ~ 2 = 1 carton

1 kg (in aluminum pouch) × 3 ~ 5 = 1 can



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