

Hyabest[®] (J)

Sodium Hyaluronate

Kewpie Corporation

“Hyabest[®](J)” is a hyaluronic acid made by fermentation method and its easing effect on knee-pain has been confirmed by human oral administration test. Hyabest[®](J) supports you to create healthy and active life.

FUNCTIONS OF HYALURONIC ACID IN KNEES

- In knee joint ,hyaluronic acid
 - is a major constituent of cartilage.
 - is working on synovial fluid to keep its viscosity.
 - is diminishing by aging.
- In knee joint ,hyaluronic acid
 - acts as a cushion against shock.
 - helps the joint move smoothly (lubricant).
 - protects cartilage from wear and tear.

TEST RESULT OF ORAL ADMINISTRATION

Analysis of the oral administration test result on Hyabest[®](J) has confirmed its effectiveness in improving pain in knee joints.

Test method : Double blind test

Period of administration : 8 weeks

Dosage : 200mg/day of Hyabest[®](J)

Assessment method : WOMAC*

* WOMAC : American standard of assessment of pains in knee joint (Assessment standard commonly adopted by orthopedists) .

SAFETY

The safety test results of our manufacturing product “Sodium Hyaluronate”, produced by fermentation, are followings.

- Acute oral toxicity in mice (LD50) Not less than 10 g/kg
 - Acceptable daily intake (ADI) 34 mg/kg/day
(Based on Subacute (28-day) toxicity in rats)
 - Ames test Negative
- * “Hyabest(J)” and our manufacturing product “Sodium Hyaluronate” are both produced from the materials of the same origin and through the very similar production process.

SPECIFICATIONS AND A TYPICAL ANALYSIS

	Specifications	Analysis
Description	White to pale yellow powder, having a slight, characteristic odor.	Passed
Identification (1)	To 10mL of a sample solution (1 in 1,000) add 2 to 3 drops of a solution of cetylpyridinium chloride (1 in 20): a white precipitate is produced.	Positive
(2)	To 1 mL of a sample solution (1 in 10,000) add 6 mL of sulfuric acid and heat it in a water bath for 10 minutes. After cooling, add 0.2mL of carbazole TS, allow to stand: a red to red-purple color develops.	Positive
pH	5.0 ~ 7.0	6.3
Heavy Metals	NMT 20µg/g	NMT 20µg/g
Arsenic	NMT 1.5µg/g	NMT 1.5µg/g
Hemolytic Streptococcus	Negative	Negative
Hemolysis	A red blood corpuscle is precipitated and the top of the solution is clear. (Negative)	Passed
Assay (as Glucuronic Acid)	NLT 35%	46%
Hyaluronic Acid	NLT 95% ◆	100%
Loss on Drying	NMT 10%	5%
Crude Fat	NMT 0.2%	NMT 0.1%
Residue on Ignition	15 ~ 20 %	17%
Kinematic Viscosity	30 ~ 80mm ² /s	42mm ² /s
Aerobic plate counts	NMT 300/g	NMT 20/g
Coliforms	Negative	Negative
Mold and Yeast	NMT 100/g	NMT 50/g

◆ : Hyaluronic Acid content (%) (As hyaluronic acid and/or salts of hyaluronic acid : dry basis)
 = 100 - Protein content (%) - Crude Fat content (%)

STORAGE AND EXPIRY

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

Expiry : 36 months from manufacturing date. (unopened, at ordinary temperature)

※1 months = 30days

PACKING

100 g (in aluminum pouch) × 1 ~ 10 = 1 carton

1 kg (in aluminum pouch) × 1 ~ 10 = 1 carton

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