

- Food
- Food Additive
- Cosmetic
- Quasi-drug



Hokkaido Salmon

『 Proteoglycan Powder (for Food) 』

Upcycling

HALAL

GMP

Technical
Data

Proteoglycan is Extracted from Salmon Nasal Cartilage



Salmon is very popular and eaten widely in the world. Proteoglycan are extracted from the nasal cartilage of natural salmon. Nasal cartilage of salmon called "Hizu"(Icy head), because it looks clear and beautiful, is eaten traditionally in Hokkaido and Tohoku region. This ingredient is undenatured proteoglycan that is extracted from natural salmon of Hokkaido.

Proteoglycan is a component that exists in the cartilage of humans and animals. "Proteo" means protein, and "glycan" means polysaccharide.

Proteoglycan is a broadly defined glycoprotein that is formed by covalently bonding sulfated polysaccharides called glycosaminoglycans such as chondroitin sulfate, dermatan sulfate, heparan sulfate, heparin, and keratan sulfate to proteins (called core proteins). It exists in the extracellular matrix and cell surface of animals and forms complexes with fibrous matrix proteins such as hyaluronic acid and collagen.

Expected Function

- ⊙ Improving rough skin and wrinkles
- ⊙ Promoting collagen and hyaluronic acid production
- ⊙ Improving joint pain
- ⊙ Anti-inflammatory effect
- ⊙ Fibroblast / epidermal cell activation
- ⊙ Improving skin water retention
- ⊙ Hair papilla cell activation effect

Recommended Dosage

- ⊙ For Beauty: 5 mg/day
- ⊙ For Joint: 10 mg/day

Production Process



Display Name Example

- ⊙ Salmon Nasal Cartilage Extract
- ⊙ Salmon Cartilage Extract (contains undenatured Proteoglycan), etc

Uses

- ⊙ Joint supplements, drinks and processed foods
- ⊙ Beauty supplements, drinks and processed foods

Quality Standard Composition

Material	Salmon Nasal Cartilage
Property	White to light yellow powder with its original scent
Proteoglycan	Over 93%
pH	6.5~8.5
Heavy metal (Pb)	Less than 2.0 ppm
Heavy metal (As)	Less than 2.0 ppm
Viable count for bacteria	Less than 3,000 pcs/g
Coliforms	Negative

Other

Quantity	100g, 1kg
Shelf life	2 years from the production date
Storage condition	Keep in cool dry place, and avoid direct sunlight.

Company Information

Ver.2304

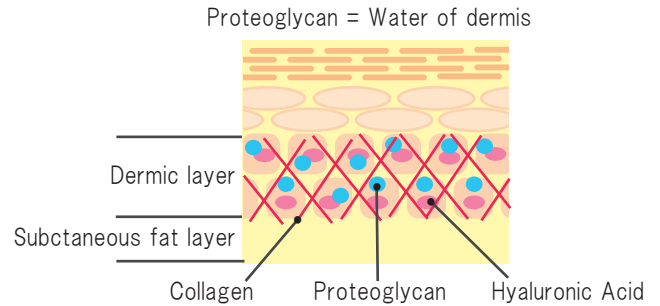
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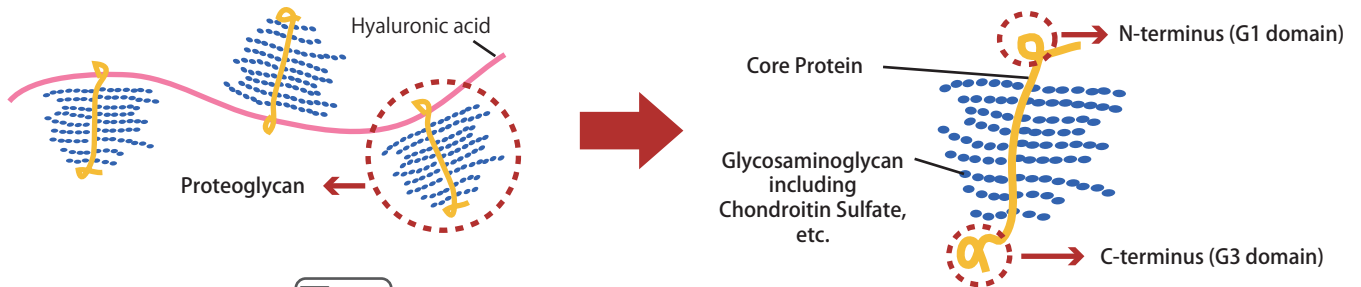
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Structure of Skin Tissue



Structure of Proteoglycan

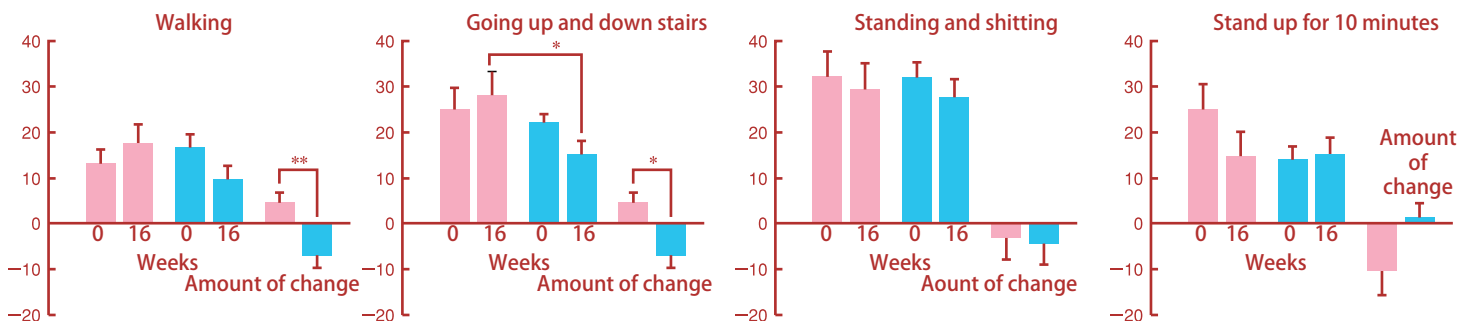


Improving Joint Pain

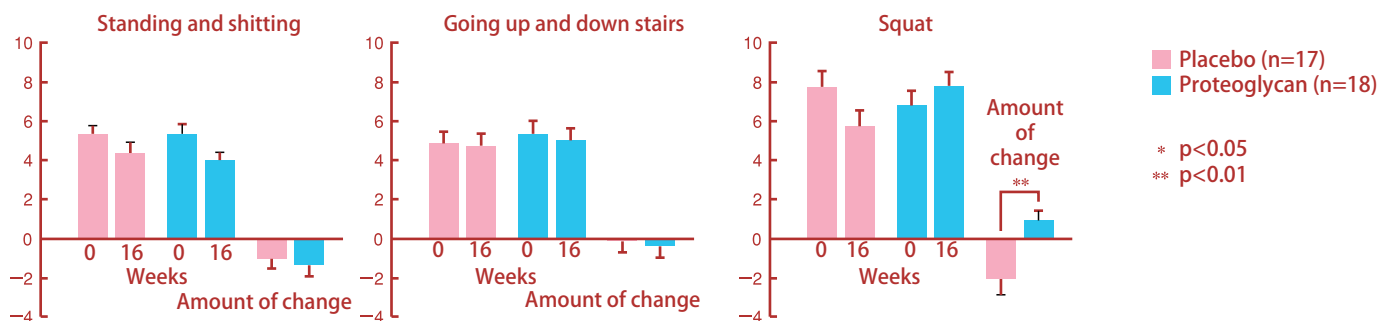


Subjects are divided into a salmon nasal cartilage derived proteoglycan intake group of 10 mg/day and a placebo group, and asked to take it for 16 weeks, and a Visual Analogue Scale (VAS) questionnaire is conducted. As a result of the test, an analysis of subjects aged 50 and over showed significant improvement in knee joint conditions.

VAS Score



VAS Score for 10 Repeated Loads



Y Kuriyama, Y Yoshida. Efficacy of Proteoglycan Derived from Salmon Nasal Cartilage on Knee Discomfort in Healthy Volunteers -A Randomized, Double-blind, Placebo-controlled Intergruop Trial-, Jpn Pharmacol Ther (薬理と治療) vol.49;no.11;2021, 1925-1935

Company Information