☐ Quasi-drug

## Hokkaido Salmon

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Healthy Do
Upcycling
GMP

Technical Data

# Undenatured Typell Collagen & Undenatured Proteoglycan from Natural Salmon



Salmon is the fish that has been eaten for the longest time in Japan, and is eaten in large quantities. Since the fish spicies is caught domestically and food safety has been established, everybody can enjoy it with peace of mind for their health.

Undenatured type II collagen and undenatured proteoglycan are extracted from the nasal cartilage of salmon caught in Hokkaido. Salmon nasal cartilage is called "Hizu" (Icy head) because it is transparent like ice, and is traditionally eaten mainly in Hokkaido and Tohoku regions, but much of it is discarded. It is an ingredient extracted from natural salmon from Hokkaido, which many Japanese people have eaten, so it can easily convey a sense of security to consumers. Traceability is ensured as everything from raw material procurement to processing is done in Japan.

## **■** Expected Function

- © Relieving joint pain and maintaining good health
- Anti-inflammatory effect

### ■ Recommended Dosage

○ 15~50 mg/day

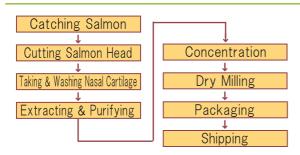
#### Uses

O Joint spplements, drinks and processed foods

#### ■ Display Name Example

Salmon nasal cartilage extract (undenatured type II collagen, undenatured proteoglycan-containing material), etc.

#### ■ Production Process



#### Other

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

## ■ Quality Standard Composition

Material	Salmon cartilage extract (Undenatured type II	
	collagen, undenatured proteoglycan contained )	
Property	White to light yellow	
	powder with original scent	
Undenatured Type II Collagen	Over 40.0%	
(Amino acid analyzing method)		
Undenatured Proteoglycan	Over 40.0%	
(HPLC method)		
рН	7.0~8.0	
Moisture	Less than 10.0%	
Residue on ignition	Less than 25.0%	
Heavy metal (Pb)	Less than 2 ppm	
Heavy metal (As)	Less than 2 ppm	
Viable count of bacteria	Less than 3,000 pcs/g	
Coliforms	Negative	

## ■ Chemical Analysis Value (/100g)

Energy	308	kcal	
Protein	56.4	g	
Fat	1.8	g	
Carbohydrate	16.5	g	
Moisture	5.0	g	
Salt equivalent	0.8	g	
Ash	20.5	g	

\*Numbers are just an analysis example.

It does not guarantee the content of the product.

## Company Information

Ver.2304

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# Hokkaido Salmon [ Salmon Nasal Cartilage Extract Powder ]



Hyaluronic Acid

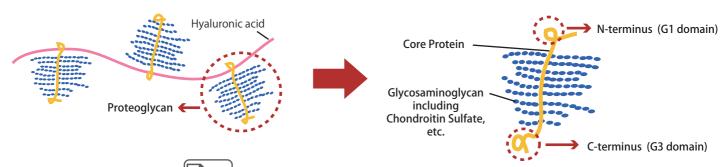
#### ■ Containing Undenatured Type II Collagen & Undenatured Proteoglycan

Articular cartilage is a bluish gel tissue that covers the tip of the bone. It has a structure in which proteoglycan is tangled in the framework mesh created by type II collagen fibers. It is 4 to 6mm thick and softer than bones. Its joint fluid (synovial fluid) that is composed mainly of hyaluronic acid has lower lubricating performance than the contact friction of ice and ice. Because of the above function of the cartilage, we can move our joints smoothly without direct contact of the bone and joint.

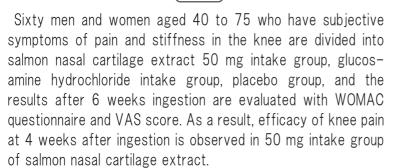
Proteoglycan is a kind of glycoprotein in a broad sence that sulfated polysaccharide called glycosaminoglycan such as chondroitin sulfate, dermatan sulfate, heparan sulfate, heparin and keratan sulfate covalently bonded to the protein. Proteoglycan is present in the extracellular matrix and cell surfaces of animals. It is also present in the fibrous matrix and the cell surface of hyaluronic acid and collagen, and forming a fibrous matrix proteins and complex of hyaluronic acid and collagen.

# (Structure of Skin Tissue) Hyaluronic Acid 1% Cartilage Cell 2% Proteoglycan = Water bag of dermis Proteoglycan 2~5% Type Il Collagen Fiber Approx. 15~20% Dermic layer Subctaneous fat layer

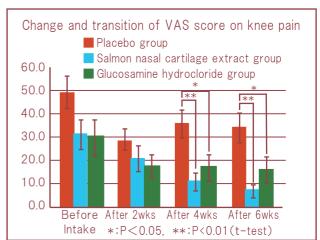
#### (Structure of Proteoglycan)



## ■ Reducing Joint Pain



From this, it is considered that salmon nasal cartilage extract is effective for amelioration of symptoms in early inflammation of the knee and prevention of knee arthritis.



Collagen Proteoglycan