

- Food
- Food Additive
- Cosmetic
- Quasi-drug



# Hokkaido Salmon

## 『Salmon Collagen Peptide (for Food) Powder, Granule』

Technical  
Data

### Reliable Natural Fish Collagen



In recent years salmon is poor, so the amount of salmon collagen production is decreasing. As alternatives, collagen derived from Alaska cod, Alaska pollack and Chinese tilapia scales can also be supplied.

Salmon is very popular and eaten widely in the world. Collagen is extracted from the skin of natural salmon.

Because of the habit of swimming in the sea surface layer, salmon which is migratory fish in the cold current system has fairly low risk of heavy metals contamination.

We produce a collagen highly secure by limiting fish species to the salmon. Denaturation temperature of collagen in the salmon is low comparing with other raw materials of collagen out there. The collagen is extracted from the skin of salmon, so it is considered as a type I collagen.

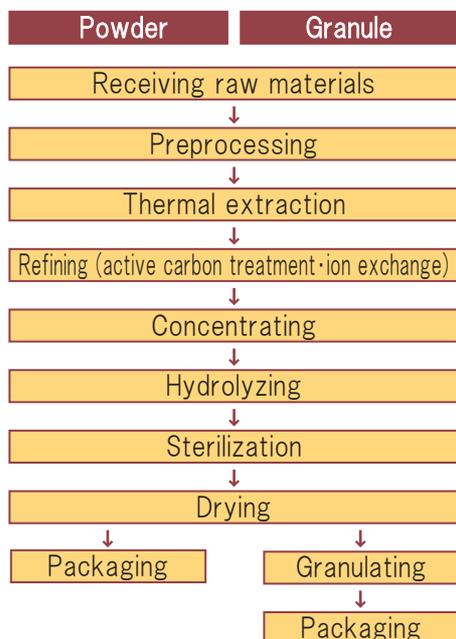
#### Expected Function & Recommended Dosage

◎ Beautiful skin effect 2~10g/day

#### Uses

◎ Supplements, drinks and processed foods for beauty

#### Production Process



#### Display Name Example

◎ Hydrolyzed collagen (containing salmon), Hydrolyzed gelatin (containing salmon), Salmon collagen peptide

#### Quality Standard Composition

Material	Salmon skin (Edible part)
Property	White to light yellow powder or granule with "umami" taste.
pH (1%water solution)	5.5~7.0
Moisture	Less than 8%
Total nitrogen content	Over 16%
Heavy metal (Pb)	Less than 10ppm
Heavy metal (Hg)	Less than 0.1ppm
Heavy metal (As)	Less than 1ppm
Viable count of bacteria	Less than 300CFU/g
Coliform bacteria	Negative
Specific pathogenic bacteria	Negative

#### Chemical Analysis Value (/100g)

Energy	392	kcal
Moisture	1.8	g
Protein	97.6	g
Fat	0	g
Carbohydrate	0.4	g
Mineral	0.2	g
Sodium	54	mg

\*Numbers are just an analysis example.. It does not guarantee the content of the product.

#### Other

Quantity	1kg, 10kg
Shelf life	3 years from the production date
Storage condition	Keep in cool dry place and avoid direct sunlight

### Company Information

1802

**North Life Co., Ltd.**

Uni Building 2F, Nishimachi Kita 6 Chome 1-1  
Nishi-ku, Sapporo, Hokkaido, JAPAN 063-0061  
TEL +81-11-887-7970 FAX +81-11-887-7971  
E-mail: info@nlife.jp URL: <http://www.northlife.co.jp/>

### ■ Collagen from natural fish: Safe and secure food material

Collagen is made from a variety of sources. They are roughly divided into mammal and fish origin and to be distinguished cultured or natural products. Collagen on the market is ranging from high-quality to low quality materials. In Japanese market, about 60% of the collagen in circulation are derived from pig, about 35% are from fish, and the others are from chicken. Those collagen derived from mammals tend to be difficult to adapt to a human, because the denaturation temperature is relatively high. The denaturation temperature is low for collagen derived from fish, thus they are relatively easier to adopt to human.

The collagen from fish origin is called Fish collagen or Scale collagen. Among the fish collagen, the most of them are made from scale of farm raised tilapia. Tilapia is a southern hemisphere fish which grown rapidly in short period of time, its very popular farming fish. It has been farmed in China, Southeast Asia and even in hot springs in Japan.

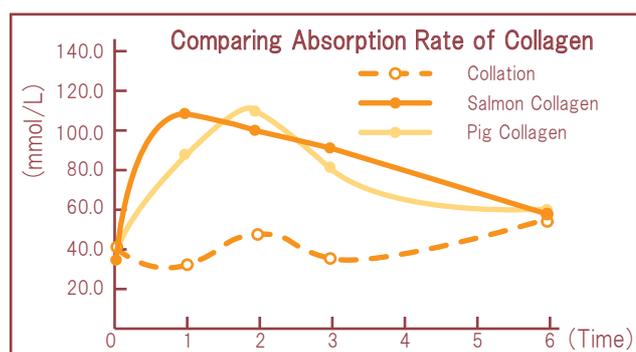
Tilapia is used worldwide as ingredient of fishburger and substitute for a sea bream. The farm raised tilapia could be affected by poor water quality due to density of aquaculture, administration of disinfectant and antibiotics and such. All the collagen derived from salmon here is extracted from natural salmon, so you can use it with confidence.

Origin	Cow	Pig	Fish	
Overview	Rarely used after BSE (mad cow disease)	Elements are close to human. Scent is not strong.	Denaturation temperature is low. Relatively easier to adopt to human	
Denaturation temp	39°C	39°C	8~30°C	
Parts used	Skin	Skin	Skin, Scale	
Environment	Farming	Farming	Farming	Natural
Circulation in Japan	Almost 0%	About 60%	About 35%	
Quality	Denaturation temperature is high. Relatively difficult to adopt to human.		Denaturation temperature is low. Relatively easier to adopt to human.	
Safety	Rarely used after BSE (mad cow disease)	Most of pigs eat livefeed (possibly contain gene modified crops) from overseas. Antibiotics are given as well.	Pesticides and antibiotics are given to fish. Water quality of culture pond could be the issue.	Natural salmon origin is the safest option. Sea pollution could be the issue though the risk is fairly low compare to the other materials.

### ■ High absorption rate

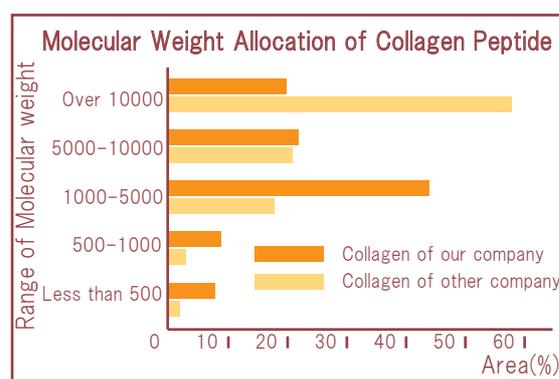


Measurement of the blood collagen rate in certain amount of time in rats after rats eat salmon collagen and the others eat the pig collagen. The salmon-derived reached the maximum rate at about half period of time earlier than pig-derived did. Because of low denaturation temperature the and low molecular weight of salmon collagen, collagen structure is very fragile for digestive enzymes to decompose and body to digest and absorb.



### ■ Low molecular weight

Proteins such as collagen is absorbed into the body well when it is broke down into low-molecular-weight by using enzyme. Collagen peptide of other company has 10,000 molecular weight. This molecular weight is relatively large and occupies about 60% of its elements. Compare to the other company' one, our raw material has 5,000 to 1,000 low molecular weight peptide and holds 40% of its elements.



### Company Information

**North Life Co., Ltd.**

Uni Building 2F, Nishimachi Kita 6 Chome1-1  
 Nishi-ku, Sapporo, Hokkaido, JAPAN 063-0061  
 TEL +81-11-887-7970 FAX +81-11-887-7971  
 E-mail: info@nlife.jp URL: <http://www.northlife.co.jp/>