

HACP

Collagen Tripeptide Gly - X - Y

A PROVEN FUNCTIONAL FOOD AND
HEALTH SUPPLEMENT



JELLICE

Gelatin & Collagen

Since 1941



JELLICE
GELATIN & COLLAGEN
SINCE 1941

Jellice Pioneer
Europe B.V.
Emmen, the
Netherlands

Zibo Biothechnology
Co. Ltd Zibo, Chna

Jellice Co., Ltd.
Sendai, Japan

Pioneer Jellice
India Pvt. Ltd
Cuddalore India

JPPL Taiwan
Branch
Pingtung, Taiwan

ABOUT US

Jellice Group is one of the top 10 Gelatin manufacturers in the world with headquarters in Sendai, Japan. Established in 1941, Jellice Group has 5 state of art manufacturing facilities across the globe, producing 15000 tonnes of gelatin annually.

The Jellice Group offers a wide selection of products :

- + **Gelatin** (Bovine, Fish, Poultry, Porcine)
- + **Collagen Peptide** (Fish, Poultry, Bovine, Porcine)
- + **HACP** Collagen Tri Peptide

With capability to manufacture and supply Gelatin and Collagen from different origins, Jellice Group is active in food, pharmaceutical, health and cosmetic industries for a wide range of applications.

JELLICE HACP - COLLAGEN TRIPEPTIDE

Jellice HACP is manufactured by unique enzymatic hydrolyzation of gelatin (Patented Technology – Japan).

The secret of our HACP is the active ingredient Gly-X-Y (tri-peptide) which is the smallest peptide of Collagen. After the unique hydrolyzation the molecular weight of the active ingredient Gly-X-Y is only 1/1000 of regular Collagen (300 kDa). Due to its small molecular weight it has very high bioavailability. HACP contains more than 90% of protein and the active ingredient is Gly-X-Y (tri-peptide) is more than 15% and is not found in other collagens. The absorption rate is 4-5 times more than other conventional Collagen Peptides.

Jellice HACP finds application in segments like Healthcare and Beauty products.

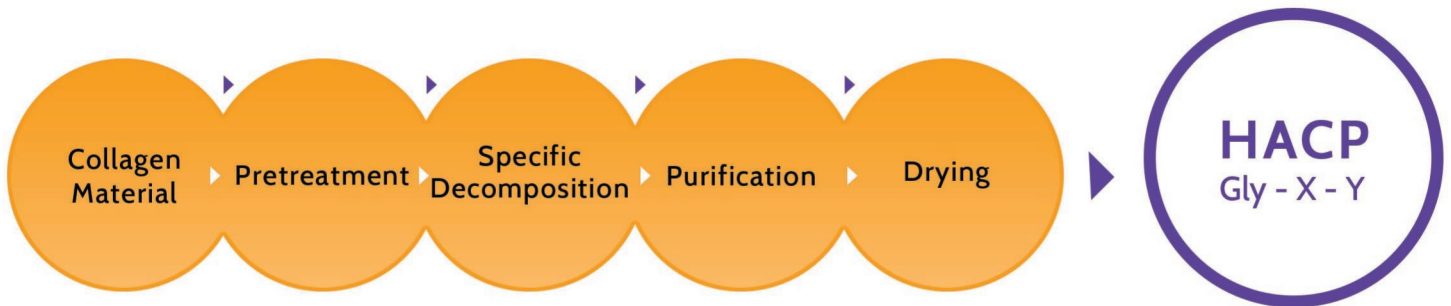
JELLICE HACP - CHARACTERISTICS

Active component collagen tripeptide Gly-X-Y \geq 15% / Low dosage : 1-2 g per day
Immediate absorption from intestine – 4 to 5 times faster than other conventional collagen peptides owing to low molecular weight.

Maintain healthy bone, tendon and ligament / Promote bone growth and joint health.
Improve elasticity and moisture retention of skin / 15 + years and 17 published studies.

HACP – FUNDAMENTAL MINIMUM UNIT OF COLLAGEN

One third of amino acid composing collagen is Glycine (Gly) in a repeating sequence : Gly-X-Y-Gly-X-Y-Gly-X-Y.....(X & Y are any amino acid)

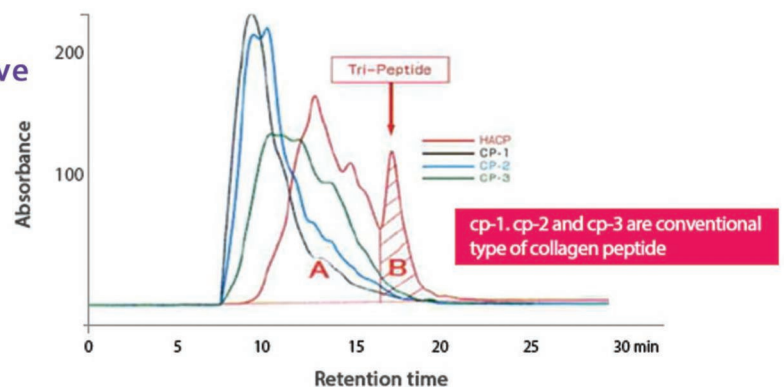


HACP tripeptide (Gly-X-Y) is a fundamental minimum unit of collagen. It is specifically hydrolysed and purified by the latest technique.

COMPARISON OF MOLECULAR WEIGHT DISTRIBUTION

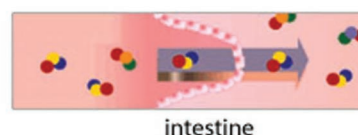
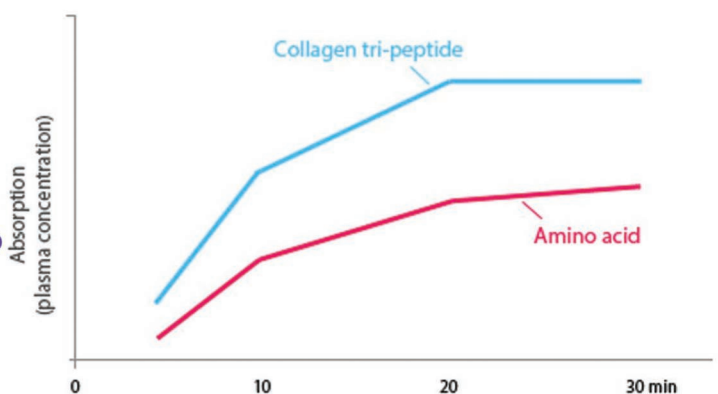
Collagen peptides have no Gly-X-Y (tripeptide) ingredients, whereas HACP contains more than 15%. Thus HACP have good psychological function.

Comparison of molecular weight distribution



DEGREE OF ABSORPTION

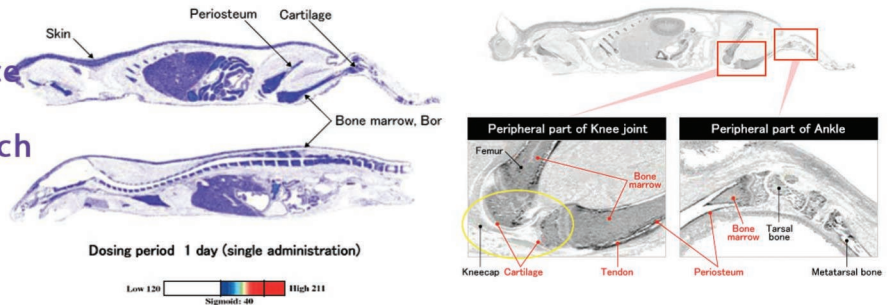
Experiments have show that HACP is absorbed into the blood vessel more quickly and effectively than amino acid molecules. Therefore, HACP is expected to bring prompt supply of collagen.



HACP is easily absorbed through intestine.

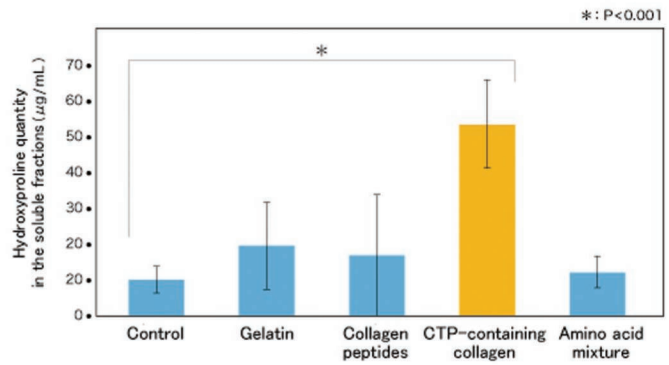
ABSORPTION TO THE HUMAN BODY AND UPTAKE TO THE TISSUES

Experiments have show that Jellice HACP is up-taken to the bone tissue and connective tissue such as bone, skin and tendon etc. selectively and efficiently.

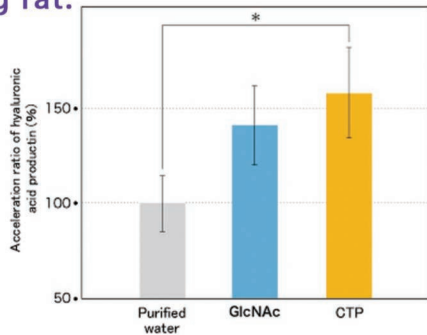


FAVOURABLE EFFECT ON SKIN

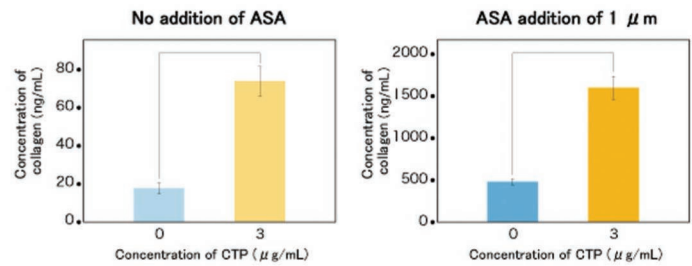
Experiments have show that HACP contributes to promote the production of collagen and hyaluronic acid by the test adopted using human fibroblast. Also it is affirmed that HACP contributes more to activate the production of dermis collagen than conventional collagen, collagen peptide and amino acid mixture by oral intake test using rat.



Comparison of collagen production with various collagen peptide



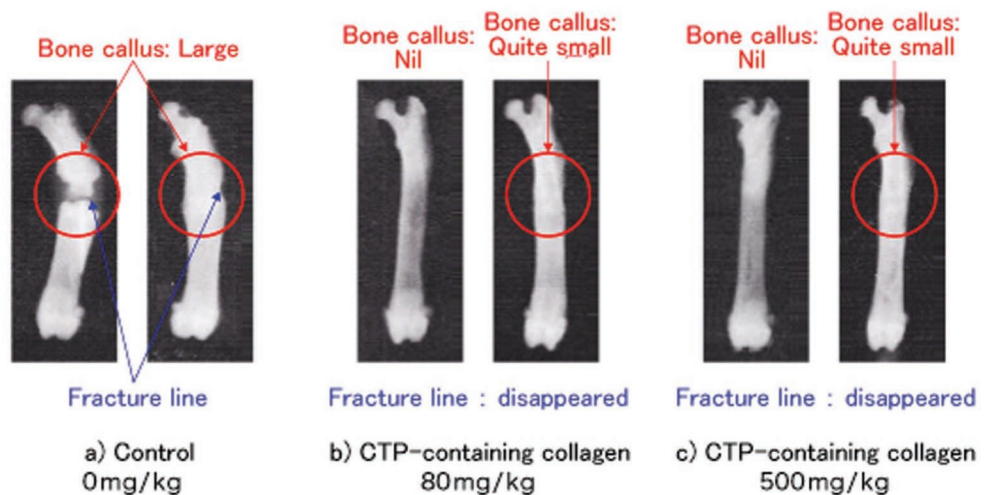
Activation of hyaluronic acid production



Promotion of collagen production

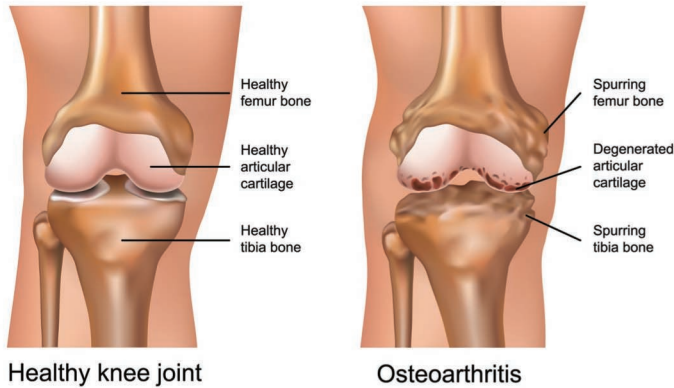
FAVOURABLE EFFECT ON BONE TISSUE

Experiments have show that HACP has favourable effect on bone tissue by using the fractured model with rat. Thus we can expect that HACP containing collagen will greatly contribute to prevent/improve serious problems such as bone fracture and osteoporosis caused by bone aging in the aged society.

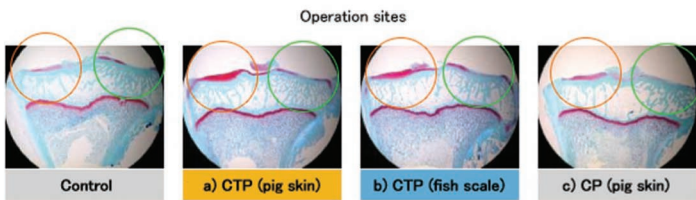
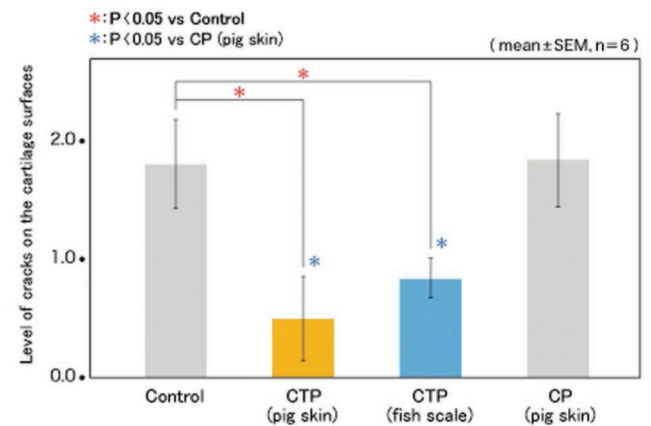
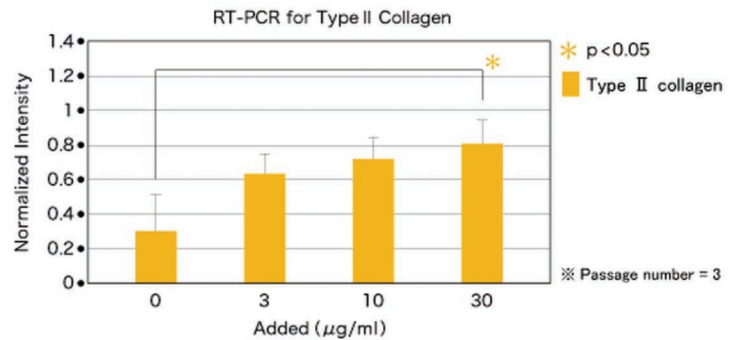


FAVOURABLE EFFECT ON JOINTS

Experiments have shown that HACP promotes collagen production of articular cartilage and it brings preventive / improving effect against cartilage diseases such as Osteoarthritis etc.



Effect of CTP on type II collagen synthesis of cartilage cells



APPLICATION

HACP is a tripeptide which is easily absorbed in the human body. Due to its high solubility, it can be formulated into various forms like powder, granule, tablet, drink etc. Wide range of application includes :

1. Collagen supplementation for skin, hair, nail and beauty.
2. Collagen supplementation for health bone, tendon, ligament, joints etc.
3. Collagen supplementation for diet.
4. Nutritional support for elderly with low digestive function.
5. Sports Nutrition.



HACP

Active component : Collagen tripeptide “Gly - X - Y” is a fundamental minimum unit of collagen

GENERAL SPECIFICATION FOR HACP COLLAGEN TRIPEPTIDE

Raw Material	Fish / Bovine / Poultry
Configuration	Powder / Granule
Color	White / Pale Yellow
Taste	Neutral
Odor	Neutral
pH	6.0 - 8.5
Heavy Metals	≤ 20ppm
Arsenic	≤ 1ppm
Moisture	= 8% / 10%
Ash	≤ 5%
Total Plate Count	≤ 1000CFU / g
E Coli	Negative
Tri-Peptide	≥ 15%
Foreign Partical	Negative
Nitrogen Content	14 - 18 %
Mesh size	45 Mesh Pass / 14 Mesh Pass
Package	10kg / paper bag
The place of Origin	Japan / Taiwan
Average Molecular Weight	1500 Da

■ CORPORATE OFFICE ■

Pioneer Jellice India Private Ltd
23-A, Vallabhai Road, Chokkikulam,
Madurai - 625002, Tamil Nadu, India.

Tel : +91 452 2534099

Mob: +91 9003910542

Fax : +91 452 2534355

Email : pioneerjellice@pioneerasia.com