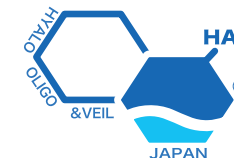


List of the patents of functional Hyaluronic acid



Hyalo-Oligo®

PAT. JP4576583, EP1865002
CN ZL200680008997.9
CN ZL20110008110.9
KR1420485
US 8933054

Hyaloveil®-P

PAT. JP5241708
EP 2166022
CN ZL200880013002.7
KR 10-1516445
US8410076 B2

Hyalorepair®

PAT. JP4845071
CN ZL201180009872.9
KR 10-1726016
US 9107842
FR 2537867

HABooster

PAT. JP5824599
EP 3103815
CN ZL201580004371.X
KR 10-2301455
TW I653987

Kewpie's Functional Hyaluronic Acids

Hyaluronic acid (Sodium Hyaluronate)

Product	INCI	Average Molecular weight range	Recommended Dosage(%)	Expiry(Condition)	Packing	China INCI
Hyaluronsan HA-LQ *	Sodium Hyaluronate	850 — 1600kDa	0.05—1.0	24 months (Ordinary temperature)	100g×1 1kg×1	Yes
Hyaluronsan HA-LQH *		1200 — 2200kDa		18 months (Ordinary temperature)		

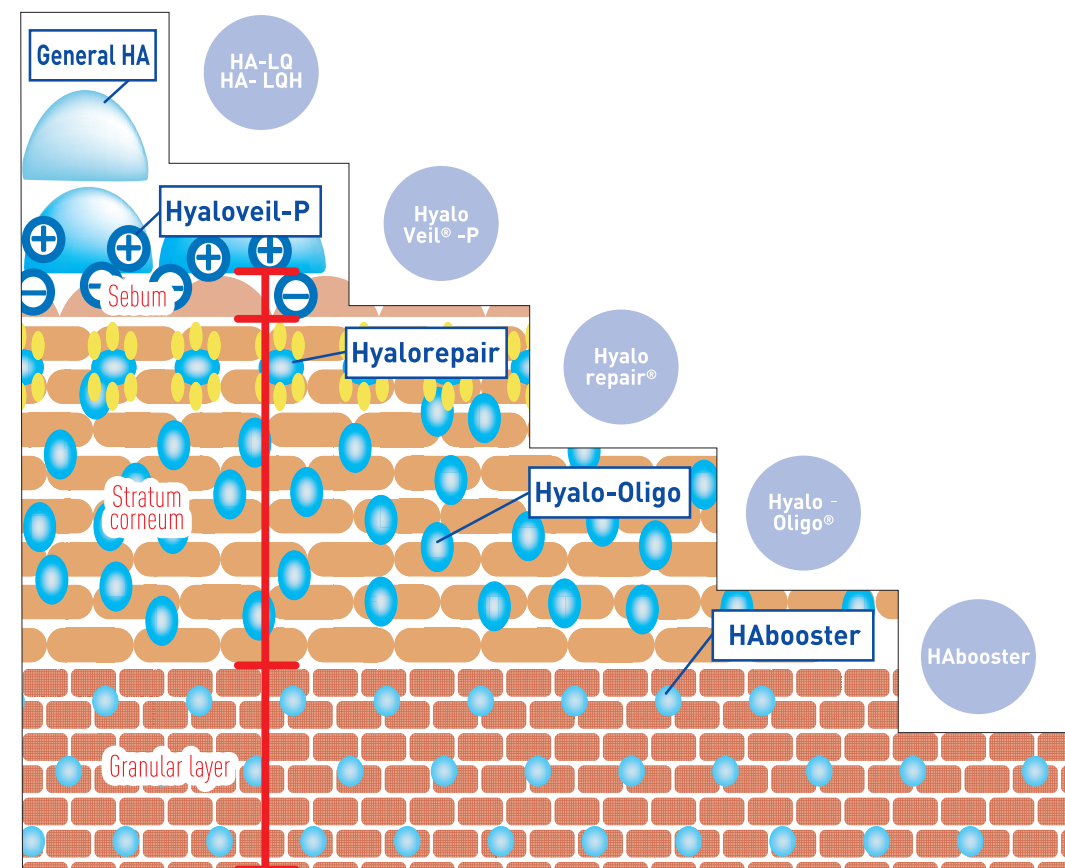
We also have 1% solution of the above *marked products. Please contact us for availability.

Functional Hyaluronic acid

Product	INCI	Average Molecular weight range	Recommended Dosage(%)	Expiry(Condition)	Packing	China INCI
Hyalo-Oligo®	Hydrolyzed Hyaluronic Acid	Less than 10,000Da	0.1—	36 months (Ordinary temperature)	100g×1 1kg×1	Yes
Hyaloveil®-P *	Hydroxypropyltrimonium Hyaluronate	500-800kDa	0.1—			Yes
Hyalorepair®	C12-13 Alkyl Glyceryl Hydrolyzed Hyaluronate	Less than 10,000Da	0.05—			No
HABooster	Hydrolyzed Sodium Hyaluronate	About 2,000Da	0.1—	24 months (Ordinary temperature)	100g×1	Yes

We also have 1% solution of the above *marked product. Please contact us for availability.

High Molecular



Low Molecular

Address : 1-4-13, Shibuya, Shibuya-ku, Tokyo 150-0002, JAPAN

Telephone : +81-3-3486-3086 Fax +81-3-5384-7879

Website : www.kewpie.co.jp/english/fc

E-mail : kewpiefc@kewpie.co.jp

kewpie 

Hyalo-Oligo®

Low molecular weight Hyaluronic acid which penetrates into the stratum corneum and moisturizes the skin from the inside.

- Ecocert approved
- Suitable for a variety of skin care and hair care applications such as creams and serums
- Non-animal derived source
- Best for Anti-Aging and Anti-Pollution concepts

ISO16128 Natural Index : 0 / Derived natural Index : 1

Hyaloveil®-P

By cationizing Hyaluronic acid, Hyaloveil®-P adsorbs to the hair and skin. The "moisturizing veil" envelops the hair and skin and keeps it moisturized even after rinsing.

- Suitable for a variety of skin care, especially hair care and sun care applications including creams, lotions and gels.
- Non-animal derived source
- Best for Anti-Aging, Anti-Pollution and sun care concepts

ISO16128 Natural Index : 0 / Derived natural Index : 0.90~0.96

Hyalorepair®

Low molecular weight Hyaluronic acid which has been alkylated can have a barrier function with both hydrophobic and hydrophilic aspects for skin care.

- Suitable for a variety of skin care and hair care applications such as creams and serums
- Non-animal derived source
- Repairs irritated rough skin and leading to smoother skin.

ISO16128 Natural Index : 0 / Derived natural Index : 0.94 ~ 0.98

HABooster

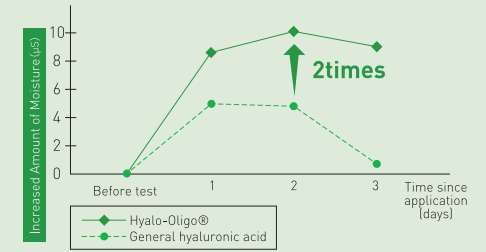
Very low molecular weight Sodium Hyaluronate which developed with the concept of promoting the collagen metabolism cycle which contributes to natural and beautiful skin.

- Suitable for a variety of skin care applications such as creams and serums
- Non-animal derived source
- It penetrates to the upper layer of the epidermis of the skin and, promoting collagen metabolism and improving wrinkles and sagging.
- Increases skin moisture and improves skin texture

ISO16128 Natural Index : 0 / Derived natural Index : 1

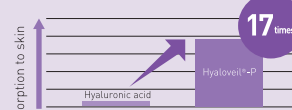
Hight moisture retentivity

Absorbent gauze infused with 1% solution of Hyalo-Oligo® was applied to the skin for 24 hours. It was confirmed that the amount of moisture in the skin after the gauze was removed revealed an improvement in skin moisture of approximately double compared to general Hyaluronic acid.



Adsorption to the skin Test Method

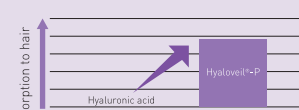
1. Hyaloveil®-P
2. Apply to forearm
3. Wash off after 3mins
4. Strip with tape (twice)
5. Sample Hyaluronic acid from tape and conduct HPLC analysis



▶ By ionic bond, the amount of Hyaloveil®-P adsorbed in the skin increases.

Adsorption to the hair Test Method

1. Hyaloveil®-P diluted 200 times
2. ← Damaged hair (after bleaching)
3. Soaking (40°C×10mins)
4. Pipette approximately 1ml of liquid and measure using liquid chromatography



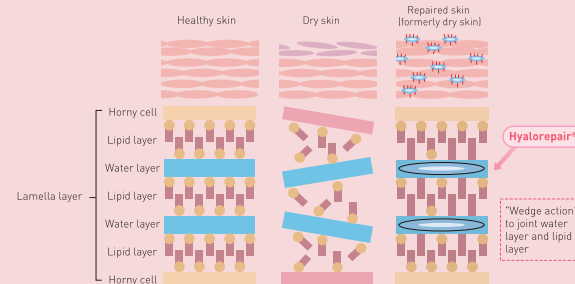
▶ By ionic bond, the amount of Hyaloveil®-P adsorbed in the hair increases.

Cuticle Restoration



▶ Lift-ups cuticles of hair are repaired by Hyaloveil®-P.

Approach to Barrier Function Recovery mechanism (including hypothesis)



Healthy skin: The lamellar layer structure has a skin barrier function such as preventing the evaporation of moisture.

Dry skin: The lamellar layer structure unbalances out and the barrier function does not work, so the evaporation of moisture increases and the skin becomes dry and sensitive.

Repaired skin: Since Hyaloveil®-P has a hydrophobic group and a hydrophilic group, this plays a role of connecting the aqueous layer and the lipid layer to give you a healthy lamellar layer structure.

Anti-aging Data

Activation of the collagen regeneration cycle leads to the alleviation of nasolabial folds and crow's feet.

