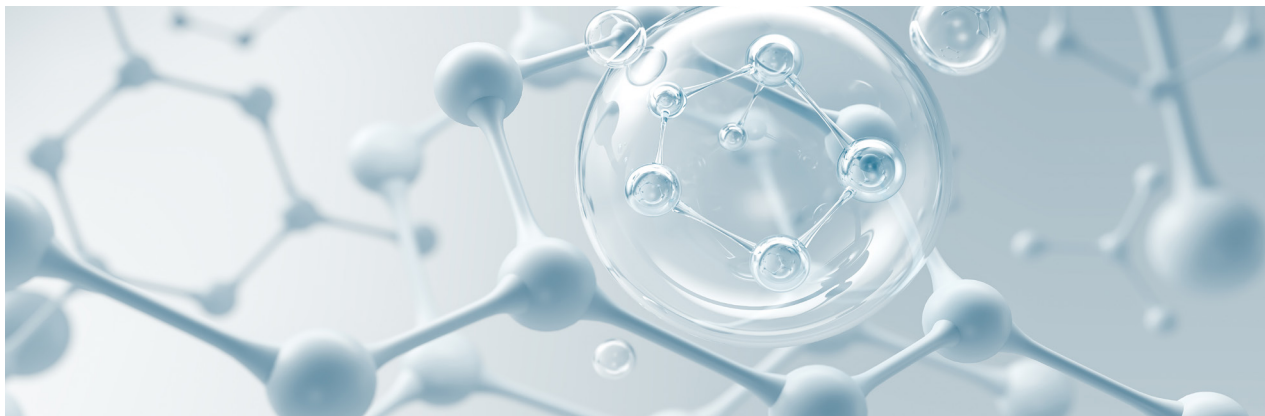


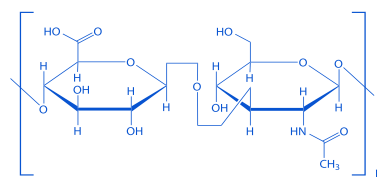


ProHA[®] sodium hyaluronate (Cosmetic grade)

INCI: Sodium Hyaluronate

Chemical formula: $(C_{14}H_{20}NNaO_{11})_n$

CAS: 9067-32-7



Sodium Hyaluronate is a high molecular acidic mucopolysaccharide repeatedly linked by N-acetylglucosamine and D-glucuronic acid disaccharide units. It is the main component of the intercellular matrix (ICM) and extracellular matrix (ECM).

ProHA[®] Sodium hyaluronate, using our own patent of Waterble[®] Patented purification technology *, extracted by fermentation of microbial strains-Streptococcus zooepidemicus **, it contains a large number of carboxylic acid groups which combine with water through hydrogen bonds to have excellent moisturizing ability. It is recognized as an ideal natural moisturizing factor (NMF) due to its ability to absorb water up to 1000 times its own mass.

● Advantage

- COSMOS / ECOCERT certification
- Non-Animal raw materials
- Higher Glucuronic acid content
- Options of different MWs(high, medium, low, Super Low)
- NON-GMO Fermentation Technology**
- Higher purity, lower impurity
- Lower content of protein, nucleic acid, and heavy metals

*Waterble[®]Patent:《Purification process of hyaluronic acid》, Patent No. : ZL 2014 1 0257053.1

**Strain: Streptococcus zooepidemicus AWA008 , It is stored by CGMCC, storage No.: CGMCCNo. 9111

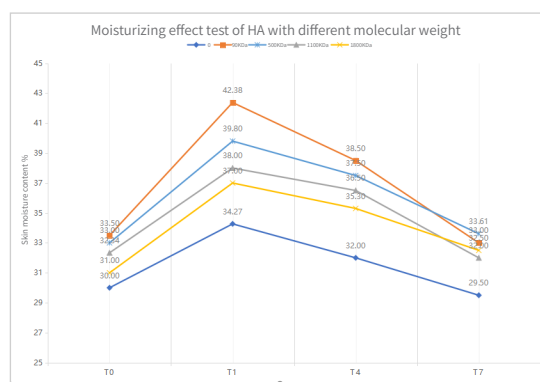
**Patent:《Optimization of hyaluronidase fermentation for production of Lactobacillus plantarum》, Patent No.: ZL 2019 1 0822762.2

● Specification

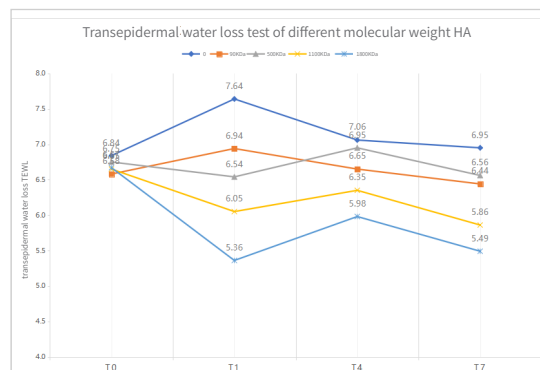
Grade	Molecular weight	Functions	Recommend dosage	Applications
ProHA® sodium hyaluronate (high molecular weight)	1.5Mda-2.5Mda	High water retention, Lubricating and film-forming	0.05%-0.1%	cream, emulsion, essence, lotion, sunscreen, gel, facial mask, Hair care etc.
ProHA® Sodium hyaluronate (Medium molecular weight)	0.5Mda-1.5Mda	Keep skin moisture and lubrication for a long time.	0.05%-0.3%	
ProHA® sodium hyaluronate (low molecular weight)	0.1Mda-0.5Mda	Nourishing the skin, easily absorbed by skin, increase skin nutrition.	0.05%-0.3%	
ProHA® sodium hyaluronate (Super-low molecular weight)	<0.1Mda	Transdermal absorption, deep moisturizing, repairing damaged cells	0.05%-0.5%	

● Test Items

Test Items	Specifications
Appearance	White or almost white powder or granules
Infrared absorption	Positive
Reaction of sodium	Positive
Absorbance	≤0.25
Transparency	>99.0%
pH	6.0~7.5
Intrinsic viscosity	Actual value
Molecular weight	Marked Value ±20%
Kinematic viscosity	Actual value
Loss on drying	≤10.0%
Residue on ignition	≤20.0%
Heavy metals	≤10ppm
Arsenic	≤2ppm
Protein	≤0.1%
Assay	95.0%~105.0%
Glucuronic acid	46.0%~51.0%
Total bacterial count	≤100CFU/g
Yeasts & mold	≤20CFU/g
E. coli	Negative
Staph	Negative
Pseudomonas aeruginosa	Negative



Description: The smaller the molecular weight, the higher the moisture content of the skin, and the small molecule sodium hyaluronate has a deep moisturizing effect.



Description: The larger the molecular weight, the smaller the transepidermal water loss, and the high molecular weight sodium hyaluronate forms a water-locking film on the epidermis to reduce water loss.

amhwa
inspire the life

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