

LingLan Biopharmaceutical Co.,Ltd
ADD: Beijing city,ChaoYang district,JingTai Mansion 2-019



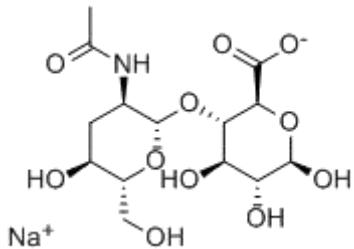
Certificate Of Authenticity

COA Number : 20170805 COA Date: 20170805 Validity: 180 days

Hyaluronic acid Basic information

Hyaluronic Acid Mechanisms of Action

Product Name:	Hyaluronic acid
Synonyms:	[BETA-SODIUM-GLUCONATE-(1,3)-BETA-N-ACETYL-D-GLUCOSAMINE-1,4-JN;COPOLY(BETA-GLUCURONIC ACID-[1->3]-BETA-N-ACETYLGLUCOSAMINE-[1->4] SODIUM SALT;HYALURONIC ACID NA-SALT;HYALURONIC ACID, SODIUM SALT, STREPTOCOCCUS SPECIES;HYALURONIC ACID SODIUM;HYALURONIC ACID HUMAN SODIUM SALT;POLY(BETA-GLUCURONIC ACID-[1->3]-BETA-N-ACETYLGLUCOSAMINE-[1->4]), ALTERNATING;SODIUM HYALURONATE (STREPTOCOCCUS)
CAS:	9004-61-9
MF:	C14H22NNaO11
MW:	403.31
EINECS:	232-678-0
Product Categories:	Substrates ;Cnbio
Mol File:	9004-61-9.mol



Hyaluronic acid Chemical Properties

storage temp.	-20°C
solubility	H ₂ O: 5 mg/mL, clear, colorless
Water Solubility	Soluble in water.
EPA Substance Registry System	Hyaluronic acid(9004-61-9)

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Safety Information

Hazard Codes	B
Safety Statements	22-24/25
WGK Germany	3
RTECS	MT7250000
F	3-10
TSCA	Yes
Hazardous Substances Data	9004-61-9(Hazardous Substances Data)

Hyaluronic acid Usage And Synthesis

Hyaluronic Acid	<p>Hyaluronic acid is a completely transparent, non-adhesive, water-soluble and grease-free acid mucopolysaccharide. Its molecular weight is between a few hundred thousand to millions, and it makes up the dermis layer of the skin. Its unique molecular structure and physicochemical properties has many important physiological functions inside the body, such as lubricating joints, adjusting vascular permeability, adjusting proteins, diffusing and transporting water electrolytes, and promoting wound healing. Hyaluronic acid has a unique water retention effect and has the best known natural moisturizing properties, making it the ideal natural moisturizer.</p> <p>Hyaluronic acid is an essential drug in ophthalmic "sticky surgeries". It is used in cataract surgery, in which its sodium salt remains in the anterior chamber to maintain depth in the anterior chamber and ensure a clear surgical view. It reduces the occurrences of postoperative inflammation and complications, thus improving the vision-correcting effects of the surgery. It is also used in complicated retinol detachment surgery. Hyaluronic acid has a low molecular weight and is considered the ideal natural moisturizing agent, so it is used as an additive in high-end makeup and as a moisturizer in creams, gels, lotions, masks, and serums. It is also used medically as a moisturizer to improve moisture retention and lubrication, and it also expands capillaries and improves skin health. For example, hyaluronic acid with a low molecular weight can be used as a lubricant in surgeries (such as knee surgery), while those with high molecular weight can be used as surgical lubricant and as a substitute for vitreous in ophthalmic surgery.</p>
Mechanisms of Action	<p>Hyaluronic acid's main functions include:</p> <ul style="list-style-type: none"> Has excellent affinity to water and can regroup water within tissue for better retention and lubrication. Folds to form a three-dimensional network and produces physiological effects, including producing fluid resistance, maintaining water balance and bodily stability, influencing macromolecule solubility, structure, chemical balance and system osmotic pressure, preventing the spread of pathogens, and promote the condensation of collagen fiber secretory substances. Forms polymers with inseparable proteins to maintain tissue shape and size and to ensure reversible tissue compression resistance. Affects macrophages, adherent cells, lymph cells, and natural killer cells. Serves as an important part of interstitial fluid and is mainly metabolized in the liver. Liver fiber activity increases HA synthesis; combined with reduced function during cirrhosis, blood HA levels may increase

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abnormally.

Hyaluronic acid Preparation Products And Raw materials

Raw materials A PRONASE A-->PR3 (c-ANCA) ELISA

Hyaluronic acid Certificate Of Authenticity

Items	Limits
Purity	99%
Moisture	0.5%
Free acid	0.1%
HCl insoluble	0.1%
Appearance	white powder
PB	10 PPm

