

Hyaluronic Acid Sodium

Catalog Number: C-HA-100MG
C-HA-250MG

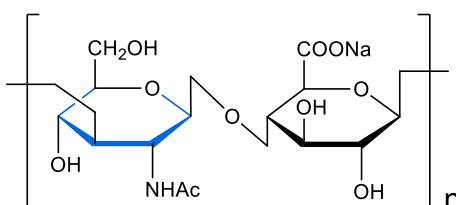
Quantity: 100 mg
Quantity: 250 mg

Synonyms: Poly($\rightarrow$ 4)- β -glucuronic acid-[1 $\rightarrow$ 3]- β -N-acetylglucosamine-[1 $\rightarrow$), hyaluronan, poly[(1 $\rightarrow$ 3)- β -D-GlcNAc-(1 $\rightarrow$ 4)- β -D-GlcA], hyaluronic acid sodium salt

CAS Number: 9067-32-7

Source: Cocks combs

Product Description: Hyaluronic acid is an anionic, high molecular weight (600 kDa to 1000 kDa) and non-sulfated glycosaminoglycan distributed widely throughout connective, epithelial, and neural tissues. It is composed of a repeating disaccharide unit of glucuronic acid and *N*-acetylglucosamine: [- β (1,4)-GlcA- β (1,3)-GlcNAc-]_n^{1, 2}. It is traditionally regarded as a biological 'goo' that participates in lubricating joints or holding together gel-like connective tissues. Hyaluronic acid also functions as a microenvironmental cue that co-regulates cell³, and interact with proteins involved in cell movement and proliferation⁴.



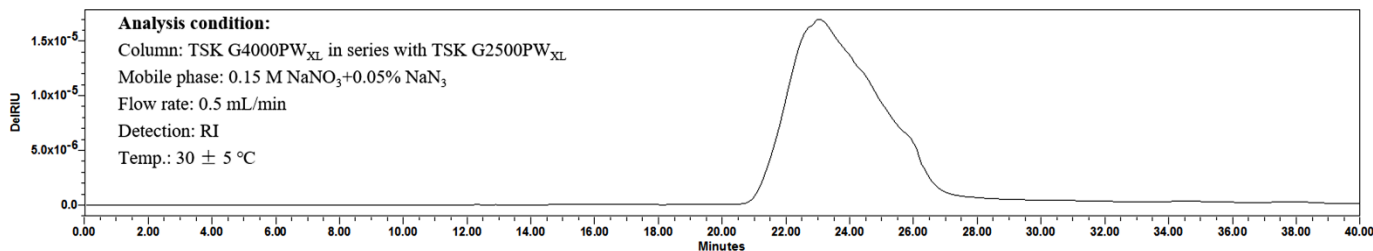
Purity	≥98%	High-performance gel permeation chromatography (HPGPC)
Average Molecular Weight (M _w , kDa)	~850 - 950	HPGPC-MALLS
Structure Analysis	Pass	¹ H- and ¹³ C-NMR spectra ⁵
Solubility, 50 mg/mL, H ₂ O	Clear, Colorless to faint yellow	
Appearance	White powder	

Storage/Stability: Store at room temperature in a dry and dark place until opened. Following reconstitution, aliquot and freeze at -20°C to -80°C for long-term storage or refrigerate at 2°C - 8°C for short-term storage.

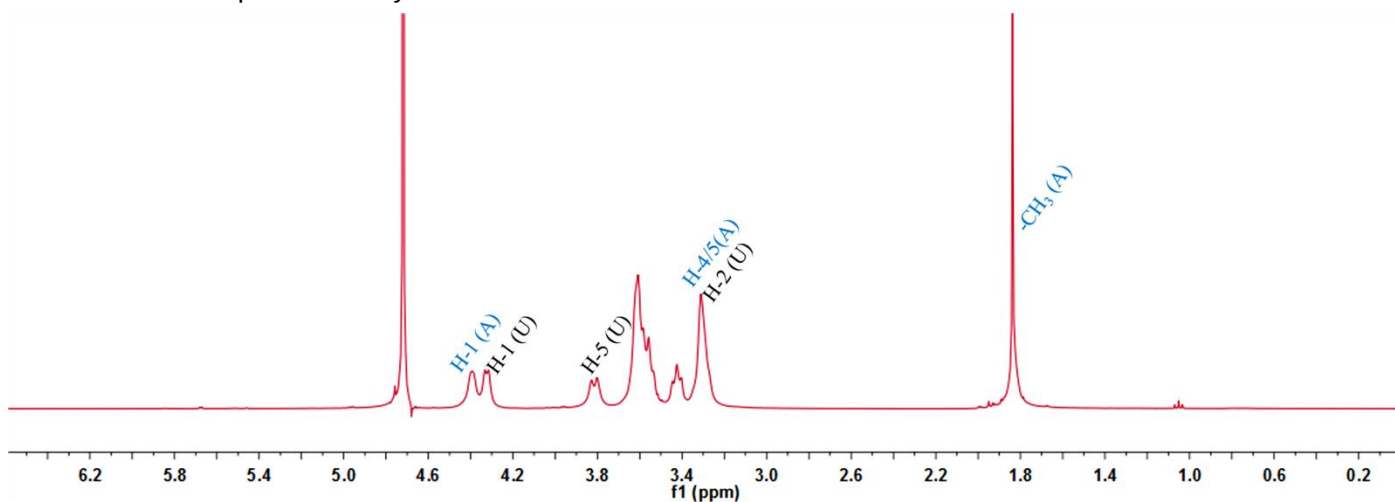
Related Products:

Product	Catalog Number
K5 Polysaccharide	C-K5PS
K4 Polysaccharide	C-K4PS
Curdlan	C-CURDLAN
Heparin Sodium from Porcine Intestinal Mucosa	C-HEPPIM
Heparin Sodium from Bovine Lung	C-HEPBL
Low-Molecular-Weight Konjac Glucomannan	C-LKGM
Chitosan	C-CHITOSAN

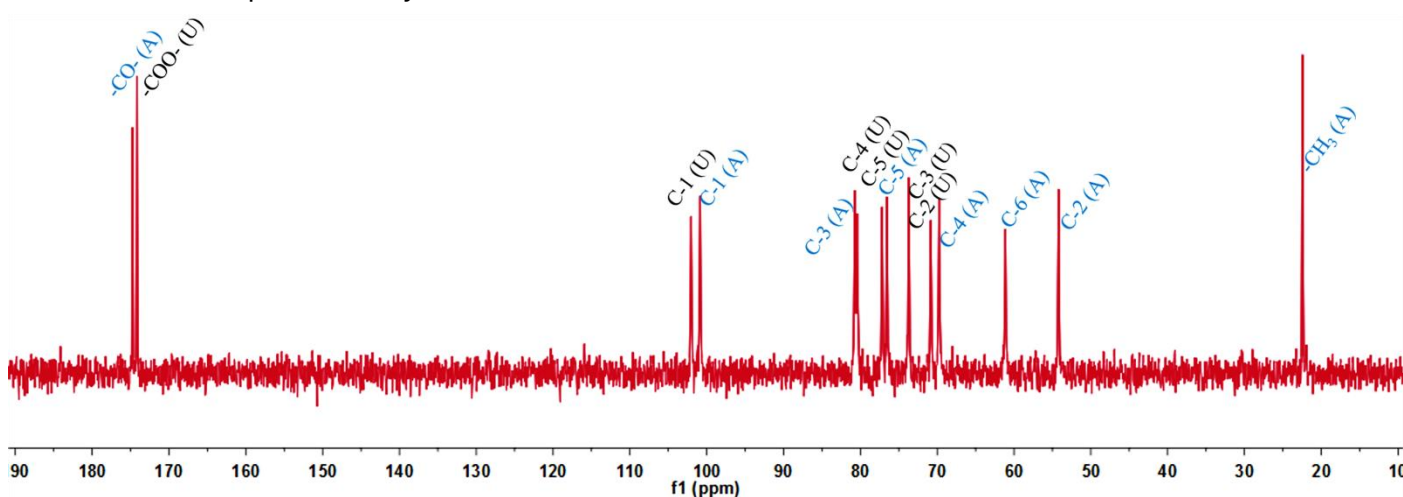
1. Purity analysis of hyaluronic acid by HPGPC



2. The ¹H-NMR spectrum of hyaluronic acid^{6, 7}



3. The ¹³C-NMR spectrum of hyaluronic acid^{8, 9}



References:

1. Kakehi, K., M. Kinoshita, and S.-i. Yasueda. *Journal of Chromatography B*. **797**(1-2): p. 347-355(2003).
2. Lapčák, L., et al. *Chemical Reviews*. **98**(8): p. 2663-2684(1998).
3. Toole, B.P. *Nat Rev Cancer*. **4**(7): p. 528-39(2004).
4. TOOLE, B.P. *Journal of Internal Medicine* **242**: p. 35-40(1997).
5. Volpi, N. and F. Maccari. *Biochimie*. **85**(6): p. 619-625(2003).
6. Kvam, B.J., et al. *Carbohydrate Research*. **230**(1): p. 1(1992).
7. Sicińska, W., B. Adams, and L. Lerner. *Carbohydrate Research*. **242**(11): p. 29(1993).
8. Feder-Davis, J., D.M. Hittner, and M.K. Cowman. *Water-Soluble Polymers*. 1991).
9. Cowman, M.K., D.M.H. And, and J. Federdavis. *Macromolecules*. **29**(8): p. 2894-2902(1996).