



Hyaluronan Oligosaccharide 4mer sodium salt (Endotoxin Free)

Code#: CSR-11006

Product Name: Hyaluronan Oligosaccharide 4mer sodium salt

Molecular Weight: 820.61

Storage: below 4 °C (Freezable)

Storage conditions: To avoid high temperature and high level of humidity and exposure to UV light. Preferably store in the dark.

Note: This product is Endotoxin Free (tested and certified in house). However, it is not sterilized, please use filter (ex. 0.22μm) as you need.

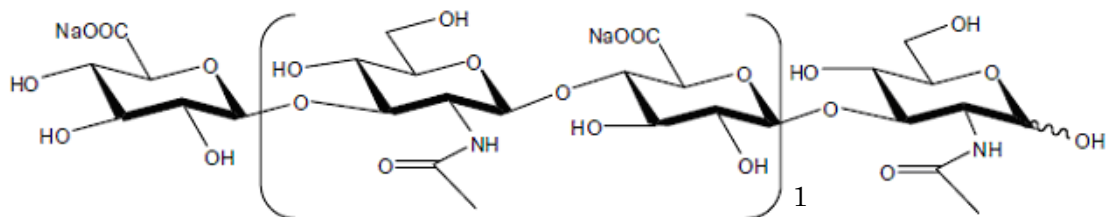
Please pay enough attention to static electricity at the weighing.

Hyaluronan oligosaccharides are known for their various activities depending on the size as reported by Stern R. et al¹⁾. Hyaluronan oligosaccharides are made by an enzyme, hyaluronidase, from hyaluronan polymer extracted from rooster comb or isolated from fermentation products of bacteria. There is a difference between the structure of hyaluronan oligosaccharides made by mammalian enzyme and by bacterial enzyme.

Oligosaccharides made by hyaluronidase derived from bacteria are called “unsaturated” oligosaccharides because of the double bond between C-4 and C-5 position of uronic acid at their non-reducing end. On the other hands, oligosaccharides made by hyaluronidase derived from mammalian testis are called “saturated” oligosaccharide because they have no unsaturated bound.

This product is made from hyaluronan polymer purified from fermentation products of streptococcus sp, by digestion with mammalian hyaluronidase derived from ovine testis, and purified by the column chromatography²⁾. The structure of this product is shown in the chart below.

HA Oligosaccharide 4mer: GlcAβ1→3(GlcNAcβ1→4 GlcA)₁β1→3GlcNAc



References :

- 1) Stern R, et al.: Eur J Cell Biol, 85, 699 (2006)
- 2) Tawada A, et al.: Glycobiology, 12, 421 (2002)

NOTICE: For R&D use only. Do not use for drug, household, cosmetically and others.



COSMO BIO CO., LTD.
Inspiration for Life Science

TOYO 2CHOME, KOTO-KU, TOKYO, 135-0016, JAPAN

URL: <http://www.cosmobio.co.jp>

e-mail: export@cosmobio.co.jp

[Outside Japan] Phone : +81-3-5632-9617

[国内連絡先] Phone : +81-3-5632-9610

FAX : +81-3-5632-9618

FAX : +81-3-5632-9619

Certification of Analysis

Code#: CSR-11006

Product Name: Hyaluronan Oligosaccharide 4mer sodium salt (Endotoxin Free)

Lot No.: 9K70

Size: 3 mg/vial

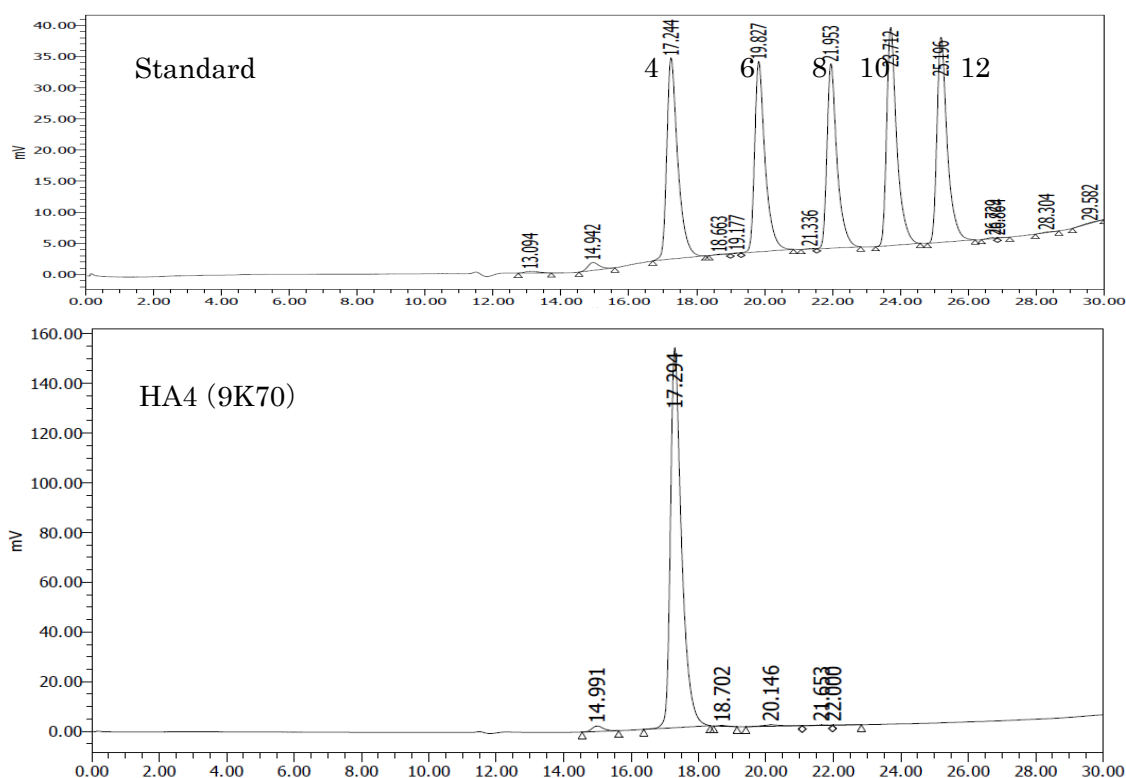
Date: 09/11/20

Item	Result	Specification	Method
Appearance	White lyophilizate	White lyophilizate	
Purity determined by HPLC See the chromatogram below	97.5%	>90.0 %	1)
Endotoxin	<0.001 EU/mg NaHA	<0.100EU/mg NaHA	2)

NaHA: Sodium Hyaluronate

1) Tawada A. et al.: Glycobiology, 12, 421 (2002)

2) Seikagaku Biobusiness Corp.: Package Insert of Endospecky[®]



Elution profile of Hyaluronan Oligosaccharide 4mer sodium salt

Manufactured by

PG
Research

Signature :

S. Miyauchi

Satoshi Miyauchi

PG Research, 4-13-11, Hanakoganei,
Kodaira, Tokyo 187-0002, Japan

URL: <http://www.pg-r.com>

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