

## Hyaluronan Oligosaccharide 6mer sodium salt

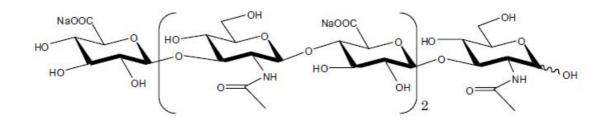
Code#: CSR-11002 Product Name: Hyaluronan Oligosaccharide 6mer sodium salt Molecular Weight: 1221.91 Storage: below 4°C (Freezable) Storage conditions: To avoid high temperature and high level of humidity and exposure to UV light. Preferably store in the dark. Note: This product is not sterilized, please 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 al<sup>1)</sup>. 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 manmmalian 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 chromatography<sup>2)</sup>. The structure of this product is shown in the chart below.

HA Oligosaccharide 6mer: GlcA $\beta$ 1 $\rightarrow$ 3(GlcNAc $\beta$ 1 $\rightarrow$ 4 GlcA)<sub>2</sub> $\beta$ 1 $\rightarrow$ 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.

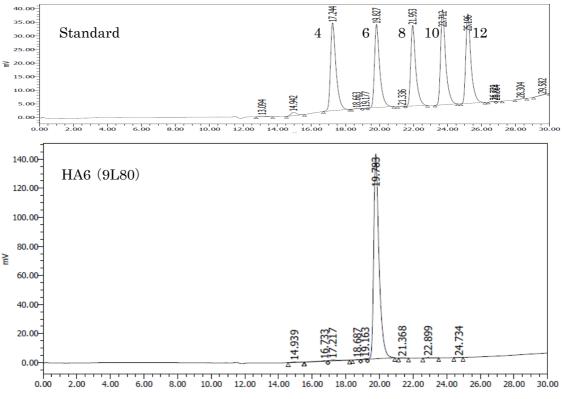


## **Certification of Analysis**

Code#: CSR-11002 Product Name: Hyaluronan Oligosaccharide 6mer sodium salt Lot No.: 9L80 Size: 3 mg/vial Date: 10/03/10

Item	Result	Specification	Method
Appearance	White lyophilizate	White lyophilizate	
Purity determined by HPLC	98.2 %	>90.0 %	1)
See the chromatogram below			

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



Elution profile of Hyaluronan Oligosaccharide 6mer sodium salt

Manufactured by

Research

Signature :

Satoshi Miyauchi PG Research, 4-13-11, Hanakoganei, Kodaira, Tokyo 187-0002, Japan URL: http://www.pg-r.com

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