



## Certification of Analysis

Product Name: Biotin Labeled Sodium Chondroitin Sulfate E

Code Number: BHCS-E2(SqC)1

Lot Number: 17C395

Size: 1mg

Date: 2017/03/24

Remark: Specifications are to be modified without notice.

	Result	Specification	Method
Appearance	white amorphous block or powder (lyophilizate)	white amorphous block or powder (lyophilizate)	—
Actual Content	1.0mg	0.8 — 1.2mg	1)
Mw measured by HPLC	$78 \times 10^3$ dalton	—	2)
Degree of Substitution*	9.60%	2.00 — 12.00%	3)
Purity on Electrophoresis	no bands other than the principal band appears	no bands other than the principal band appears	4)
Binding Ability to Avidin and Anti Chondroitin Sulfate Antibody (MO225)	pass	pass	5)

Mw: Molecular Weight

\*Degree of Substitution was expressed as the molar percentage of bound Biotin groups to disaccharide units.

- 1) Bitter, T., et al.: Anal. Biochem., 4, 330 (1962)
- 2) TOSOH: TOSOH Separation Report, 38, 11
- 3) Ogamo, A., et al.: Carbohydr. Res., 105, 69 (1982)
- 4) Seno, N., et al.: Anal. Biochem., 37, 197 (1970)
- 5) Yamagata, M., et al.: J. Biol. Chem., 262, 4146 (1987)

Signature :

Satoshi Miyaochi

Distributor

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