

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2022-08-10 10:03:26
 Date of Next Testing: 2024-07-30 10:03:26
 Product Name: **X-GlcA CHA Salt**
 CAS Number: 114162-64-0
 Specifications & Purity: $\geq 99\%$
 Lot #: J2022157
 SKU #: **B104857**
 Version: **0**
 Analysis #: **123288**
 Storage Temperature: Store at -20°C, Argon charged

Parameter	Limit Values	Result
Carbon by Elemental Analysis(anhydrous)	43.6-48.5 (%)	45.30000 %
Purity(HPLC)	99-100 (%)	99.32800 %
Nitrogen by Elemental Analysis (anhydrous)	4.8-5.9 (%)	5.30000 %
Specific Rotation $[\alpha]_{25/D}(c=1 \text{ in DMF})$	-92--85 (°)	-88.60000 °
Water by Karl Fischer	0-6 (%)	3.40000 %
Appearance (B104857)	white powder	White powder
beta-Glucuronidase detection test	to pass test	to pass test
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in DMF , Colorless, Clear, 50 mg/ml	pass	Pass



John Su
QA & QC Manager