

## Certificate of Analysis

Date of Testing: 2022-06-15 17:09:51  
Date of Next Testing: 2026-06-14 17:09:51  
Product Name: **D-Cysteine hydrochloride monohydrate**  
CAS Number: 32443-99-5  
Specifications & Purity: 98%  
Lot #: F2208161  
SKU #: **C110184**  
**Analysis:** **082350**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.39100 %
Specific Rotation [α] <sub>20</sub> /D(c=5 in 1mol/L HCl)	-6.5--4.5 (°)	-5.88 °
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Appearance (C110184)	white powder or solid or crystal	White Powder or Solid or Crystals



John Su  
QA & QC Manager