

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-06-05 14:15:15  
Date of Next Testing: 2027-06-04 14:15:15  
Product Name: **D-Cysteine hydrochloride monohydrate**  
CAS Number: 32443-99-5  
Specifications & Purity: 98%  
Lot #: 11528008  
SKU #: **C110184**  
**Analysis: 234382**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	98.46000 %
Specific Rotation $[\alpha]_{20/D}(c=5 \text{ in } 1\text{mol/L HCl})$	-6.5--4.5 (°)	-5.40 °
Appearance (C110184)	white powder or solid or crystal	White Powder or Solid or Crystals
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager