

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-03-29 15:41:42  
Date of Next Testing: 2027-03-28 15:41:42  
Product Name: **Doxorubicin hydrochloride**  
CAS Number: 25316-40-9  
Specifications & Purity: 98%  
Lot #: C2316702  
SKU #: **D107159**  
**Analysis: 154308**  
Storage Temperature: Store at -20°C

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.33300%
Water by Karl Fischer(in 2-Methoxyethanol)	0-3 (%)	0.79%
Specific Rotation [a] <sub>D</sub> (c=0.1 in MeOH)	240-270 (°)	269.98°
Appearance (D107159)	Orange to Red-Brown Powder	Orange to Red-Brown Powder
Solubility in H <sub>2</sub> O , Orange to Red, Clear, 50 mg/mL	pass	Pass
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager