

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2023-07-26 18:18:42
Date of Next Testing: 2027-07-25 18:18:42
Product Name: **Doxorubicin hydrochloride**
CAS Number: 25316-40-9
Specifications & Purity: 98%
Lot #: G2320195
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 $[\alpha]_{20/D}(c=0.1 \text{ in MeOH})$ | 240-270 (°) | 269.98 ° |
| Appearance (D107159) | Orange to Red-Brown Powder | Orange to Red-Brown Powder |
| Solubility in H ₂ O , Orange to Red,Clear,50 mg/mL | pass | Pass |
| Proton NMR spectrum | Conforms to Structure | Conforms to Structure |



John Su
QA & QC Manager