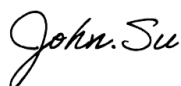


Shanghai Aladdin Biochemical Technology Co., LTD
809 Chuhua Branch Road, Fengxian District, Shanghai 201400, China

Certificate of Analysis

Date of Testing: 2024-03-20 11:33:54
Date of Next Testing: 2026-03-20 11:33:54
Product Name: **Cinchonine Sulfate Dihydrate**
CAS Number: 5949-16-6
Specifications & Purity: $\geq 98.0\%$
Lot #: F2202065
SKU #: **C134223**
Analysis: **333400**

Parameter	Limit Values	Result
Purity(HPLC)	85-100 (%)	88.28000 %
Water by Karl Fischer	4.7-5.2 (°)	4.80000 °
Purity(Neutralization titration)	98-100 (%)	99.89000 %
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in EtOH})$	188-192 (°)	190.00000 °
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager