

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2023-06-11 16:54:42  
 Date of Next Testing: 2027-06-10 16:54:42  
 Product Name: **Noradrenaline bitartrate monohydrate**  
 CAS Number: 108341-18-0  
 Specifications & Purity: ≥98% (HPLC),USP  
 Lot #: F2305674  
 SKU #: **N107258**  
**Analysis:** **216589**  
 Storage Temperature: Store at 2-8°C

Parameter	Limit Values	Result
Specific Rotation [α] <sub>20</sub> /D(c=5 in H <sub>2</sub> O)	-12--10 (°)	-11.39°
Water by Karl Fischer	4.5-5.8 (%)	5.43%
Limit of Arterenone	0-0.2 (%)	0.05%
Assay (Anhydrous Basis)	98-102 (%)	99.67%
Ignition Residue(Ash)	0-0.1 (%)	0.00%
Appearance (N107258)	White to Off-White Powder	White to Off-White Powder
Identity	pass	Pass
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility,Colorless to faint yellow,clear(50 mg/mL, H <sub>2</sub> O)	pass	Pass



John Su  
 QA & QC Manager