

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

Certificate of Analysis

Date of Testing: 2024-03-16 14:10:32

Date of Next Testing: 2028-03-15 14:10:32

Product Name: **Methotrexate hydrate**

CAS Number: 133073-73-1

Specifications & Purity: $\geq 99\%$

Lot #: C2412040

SKU #: **M111239**

Version: **0**

Analysis #: **063511**

Storage Temperature: Store at -20°C, Argon charged

Parameter	Limit Values	Result
Ignition Residue(Ash)	0-0.1 (%)	0.05400 %
Water by Karl Fischer	≤ 12 (%)	0.22710 %
Purity(HPLC)	99-100 (%)	99.87600 %
Specific Rotation $[\alpha]_{20/D}(c=10\text{mg/ml in } 0.05\text{M NaOH})$	19-24 (°)	19.03000 °
Appearance (M111239)	Yellow to Yellow-Orange Powder	Yellow to Yellow-Orange Powder
Solubility in 1 M NH ₄ OH , Yellow to Orange Clear(50 mg + 1 ml)	pass	Pass
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su
QA & QC Manager