

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2025-10-23 16:24:30  
Date of Next Testing: 2029-10-22 16:24:30  
Product Name: **Methotrexate hydrate**  
CAS Number: 133073-73-1  
Specifications & Purity:  $\geq 99\%$   
Lot #: J2515112  
SKU #: **M111239**  
Version: **0**  
Analysis #: **063511**  
Storage Temperature: Store at  $-20^{\circ}\text{C}$ , Argon charged

Parameter	Limit Values	Result
Ignition Residue(Ash)	0-0.1 (%)	0.05400 %
Water by Karl Fischer	$\leq 12$ (%)	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 ( $^{\circ}$ )	19.03000 $^{\circ}$
Appearance (M111239)	Yellow to Yellow-Orange Powder	Yellow to Yellow-Orange Powder
Solubility in 1 M $\text{NH}_4\text{OH}$ , Yellow to Orange Clear(50 mg + 1 ml)	pass	Pass
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager