

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2024-11-28 14:23:17  
Date of Next Testing: 2028-11-27 14:23:17  
Product Name: **Methotrexate hydrate**  
CAS Number: 133073-73-1  
Specifications & Purity:  $\geq 99\%$   
Lot #: K2427189  
SKU #: **M111239**  
Version: **0**  
Analysis #: **336204**  
Storage Temperature: Store at  $-20^{\circ}\text{C}$ , Argon charged

Parameter	Limit Values	Result
Ignition Residue(Ash)	0-0.1 (%)	0.00 %
Water by Karl Fischer	$\leq 12\%$	10.80 %
Specific Rotation $[\alpha]_{20}^D$ (c=10mg/ml in 0.05M NaOH)	19-24 ( $^{\circ}$ )	19.01 $^{\circ}$
Purity(HPLC)	99-100 (%)	99.21300 %
Appearance (M111239)	Yellow to Yellow-Orange Powder	Yellow to Yellow-Orange Powder
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in 1 M NH <sub>4</sub> OH , Yellow to Orange Clear(50 mg + 1 ml)	pass	Pass



John Su  
QA & QC Manager