

## Certificate of Analysis

Date of Testing: 2025-07-15 08:44:58  
Date of Next Testing: 2029-07-14 08:44:58  
Product Name: **D-(+)-Mannose**  
CAS Number: 3458-28-4  
Specifications & Purity: Moligand™, for cell culture, ≥99%  
Lot #: L2118400  
SKU #: **M113093**  
Version: **1**  
Analysis #: **541184**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(HPLC)	99-100 (%)	99.64100%
Specific Rotation [α] <sub>25</sub> /D(c=4 in H <sub>2</sub> O in stand for 24 hours)	13.5-14.9 (°)	13.60°
Appearance (M113093)	White to Off-White Powder	White to Off-White Powder
Cell Culture Test	pass	Pass
Carbon NMR Spectrum	Conforms to Structure	Conforms to Structure
Solubility in H <sub>2</sub> O , Colorless to Faint Yellow,Clear ,50 mg/ml	pass	Pass
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager