

## Certificate of Analysis

Date of Testing: 2022-07-30 13:50:18  
Date of Next Testing: 2026-07-29 13:50:18  
Product Name: **1,2,3,4,6-Penta-O-acetyl- $\alpha$ -D-mannopyranose**  
CAS Number: 4163-65-9  
Specifications & Purity:  $\geq 98\%$   
Lot #: G2228081  
SKU #: **P292266**  
**Analysis: 095085**  
Storage Temperature: Store at  $-20^{\circ}\text{C}$

Parameter	Limit Values	Result
Purity(HPLC)	98-100 (%)	99.89600 %
Specific rotation $[\alpha]_{20/D}(C=1, \text{CHCl}_3)$	51-57( $^{\circ}$ )	56.98 $^{\circ}$
Appearance(P292266)	White to light brown powder or crystals	white to light brown powder or crystals
Proton NMR spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager