

## Certificate of Analysis

Date of Testing: 2025-07-17 10:27:51  
Date of Next Testing: 2028-07-16 10:27:51  
Product Name: **Isopropyl beta-D-thiogalactoside (IPTG)**  
CAS Number: 367-93-1  
Specifications & Purity:  $\geq 98\%$   
Lot #: G2508426  
SKU #: **I104812**  
Version: **0**  
Analysis #: **386707**  
Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Specific Rotation $[\alpha]_{20/D(c=1 \text{ in H}_2\text{O})}$	-35--29 (°)	-30.77°
Carbon by Elemental Analysis	44.9-45.9 (%)	44.91%
Purity(HPLC)	98-100 (%)	98.00000%
Water by Karl Fischer	0-5 (%)	0.75%
Melting point	109-121 (°C)	109.80000 °C
Appearance (I104812Color)	White to off-white	White to off-white
Appearance (I104812Form)	Powder, Needles, Crystals	Powder, Needles, Crystals
D2O NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility in H <sub>2</sub> O, Colorless Clear(49.00 - 51.00 mg/ml)	pass	Pass



John Su  
QA & QC Manager