

Certificate of Analysis

Date of Testing: 2025-03-04 17:11:54

Date of Next Testing: 2028-03-03 17:11:54

Product Name: **Isopropyl beta-D-thiogalactoside (IPTG)**

CAS Number: 367-93-1

Specifications & Purity: $\geq 98\%$

Lot #: B2527436

SKU #: **I104812**

Version: **0**

Analysis #: **461604**

Storage Temperature: Store at 2-8°C, Argon charged

Parameter	Limit Values	Result
Carbon by Elemental Analysis	44.9-45.9 (%)	45.01 %
Purity(HPLC)	98-100 (%)	99.90500 %
Water by Karl Fischer	0-5 (%)	0.54 %
Specific Rotation $[\alpha]_{20/D}(c=1 \text{ in H}_2\text{O})$	-35--29 (°)	-32.51 °
Melting point	109-121 (°C)	114.28000 °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 ₂ O , Colorless Clear(49.00 - 51.00 mg/ml)	pass	Pass



John Su
QA & QC Manager