

Certificate of Analysis

Date of Testing: 2025-03-04 16:13:42
Date of Next Testing: 2028-03-03 16:13:42
Product Name: **Isopropyl beta-D-thiogalactoside (IPTG)**
CAS Number: 367-93-1
Specifications & Purity: $\geq 98\%$
Lot #: B2527425
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