

ChemiPURE IPTG, ≥ 99%

1 g, 5 g

Cat No: IPTG01, IPTG05

Shipping : Ship at ambient temperature.

Storage : Store at room temperature in a tightly closed container, protected from moisture and light.

General Information

ChemiPURE IPTG (isopropyl β-D-1-thiogalactopyranoside) is a high-purity laboratory reagent (≥99%) widely used for controlled induction of gene expression in bacterial systems. IPTG is a synthetic, non-metabolizable analog of lactose that binds to the lac repressor and relieves repression of lac-regulated promoters, enabling efficient transcription of downstream genes.

IPTG is commonly used to induce recombinant protein expression from lac, tac, trc, and T7-lac promoter systems and, in combination with X-Gal, for blue/white colony screening. Typical working concentrations are generally in the 0.1–1 mM range depending on the host strain, vector, and expression system. A 100 mM stock solution can be prepared at 23.83 mg/mL in sterile water and filter-sterilized through a 0.22 μm membrane.

ChemiPURE IPTG is manufactured under stringent quality control standards to ensure high purity, excellent batch-to-batch consistency, and reliable performance in molecular biology, recombinant protein expression, and microbiology applications.

Applications

- Induction of recombinant protein expression in E. coli
- Induction of genes controlled by lac, tac, trc, and T7-lac promoters
- Blue/white colony screening in combination with X-Gal
- Molecular cloning and recombinant DNA workflows
- Bacterial gene expression and lac operon studies
- Preparation of IPTG-containing culture media and induction solutions
- Microbiology and molecular biology research applications
- General laboratory research applications

This product is sold for laboratory research use only.

CAS Number: 367-93-1

Purity: ≥99%

Molecular Weight: 238.30

Molecular Formula: C₉H₁₈O₅S

Appearance: White crystalline powder