

Data sheet

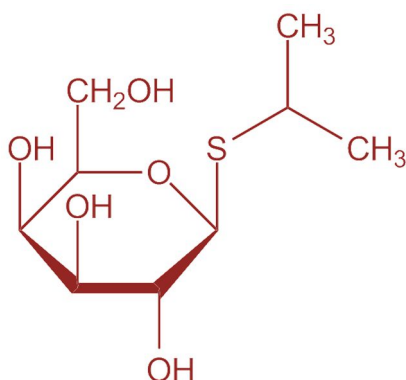
IPTG, Dioxane-Free

Cat. No: C0040

Cat. No: C0041

Introduction

IPTG (Isopropyl B-D-thiogalactopyranoside), Dioxane-Free is an analogue of allolactose that binds specifically to the repressor protein of the *lac* operon and induces expression of β -galactosidase in *Escherichia coli*. Unlike allolactose, IPTG is not a substrate for β -galactosidase, as the carbon-sulfur bond cannot be cleaved by the enzyme, so its concentration remains constant. The compound is widely used with X-Gal plates to screen for blue/white selection of recombinant bacteria.



Isopropyl B-D-thiogalactopyranoside

Application

At 1mM concentration, IPTG is used in conjunction with X-Gal or Blueo-Gal in blue-white selection of recombinant bacterial colonies that induce expression of the *lac* operon in *Escherichia coli*.

Product Size

	C0040	C0041
IPTG	5 g	25g

Storage conditions

Store at 4° C

A stock solution (0.1 M) is prepared by dissolving IPTG in water with subsequent sterile filtration of the solution. Wherever possible, you should prepare and use solutions on the same day. **Store the solution as aliquots in tightly sealed vials at -20°C.**

The final concentration of IPTG in indicator plates should be 0.2 mM.

Technical specification

- ✓ **CAS Number:** 367-93-1
- ✓ **Chemical Formula:** C₉H₁₈O₅S
- ✓ **Molecular Weight:** 238.30
- ✓ **Purity (HPLC)(on dry basis):** >99.0%
- ✓ **Melting point:** 110 – 114 °C
- ✓ **Identity (IR):** conforms to structure
- ✓ **Solubility:** soluble in water and methanol
- ✓ **Heavy metals (Pb):** <5ppm
- ✓ **1,4-Dioxane:** Not detected
- ✓ **pH (5% in water):** 5.0 – 7.0
- ✓ **Water content (Karl Fischer):** <1.0%

PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.canvaxbiotech.com for Material Safety Data Sheet of the product.

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