

ultrapure IPTG (>99% pure)

#Cat: NB-45-00030-5g

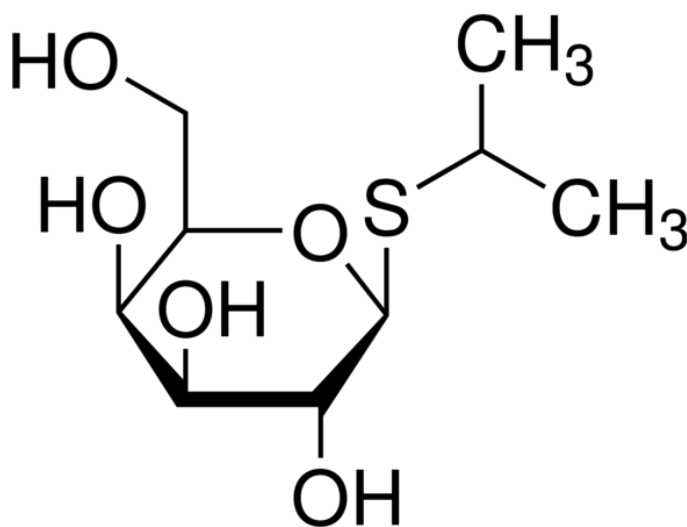
Size: 5g

#Cat: NB-45-00030-5x5g

Size: 5 x 5

#Cat: NB-45-00030-25g

Size: 25g



Product Information

Chemical Name:	Isopropyl 1-thio-Beta-D-galactopyranoside
Synonyms:	IPTG
Batch:	0000042106
Batch Molecular Formula:	C ₉ H ₁₈ O ₅ S
Batch Molecular Weight:	238,30
CAS No.:	[367-93-1]
Physical Appearance:	White solid crystal powder
Melting point:	112°C
pH:	6,5 (5% in water)
Specific Optical Rotation [alpha]_D:	-33,2° (c = 1 in water, 20°C)
Water:	0,4%
Dioxan:	not detected

Solvent and solubility

A stock solution (0.1 M) is prepared by dissolving IPTG in water with subsequent sterile filtration of the solution. The final concentration of IPTG in indicator plates should be 0.2 mM. Soluble in water up to 50 mg/ml, also soluble in methanol.

Shipping and storage

Shipped ambient, store at -20°C protected from light and moisture

Biological activity

Non-metabolizable galactose analog.

Application

IPTG is commonly used in cloning procedures that require induction of β -galactosidase activity. It is used in conjunction with X-Gal or Bluo-Gal in blue-white selection of recombinant bacterial colonies that induce expression of the lac operon in *Escherichia coli*. IPTG functions by binding to the lacI repressor and altering its conformation, which prevents the repression of the β -galactosidase coding gene lacZ.

Analytical data

HPLC:	>99% pure
Heavy Metal as Pb:	< 5 mg/kg
FT-IR Spectrum	corresponds to reference spectrum

For Research use only