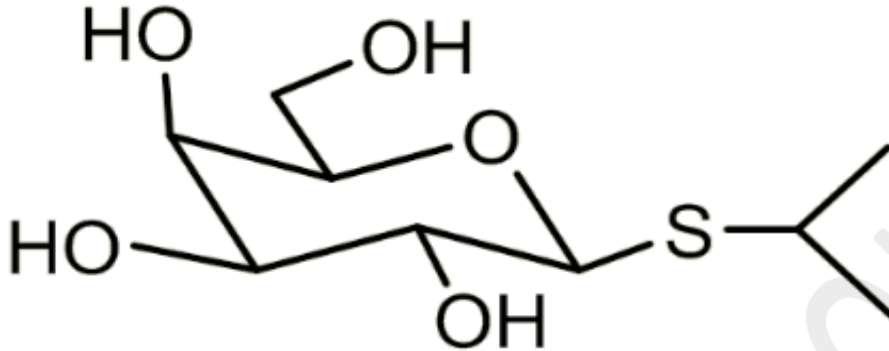


## Isopropyl 1-thio-Beta-D-galactopyranoside (IPTG) [367-93-1]

#Cat: NB-39-00019-1g	Size: 1g
#Cat: NB-39-00019-5g	Size: 5g
#Cat: NB-39-00019-25g	Size: 25g



### Product Information

<b>Chemical Name:</b>	Isopropyl 1-thio-Beta-D-galactopyranoside
<b>Synonyms:</b>	IPTG
<b>Batch Molecular Formula:</b>	C <sub>9</sub> H <sub>18</sub> O <sub>5</sub>
<b>Batch Molecular Weight:</b>	238,30
<b>CAS No.:</b>	[367-93-1]
<b>Physical Appearance:</b>	White solid crystal powder
<b>Melting point:</b>	110° - 112°C
<b>pH:</b>	(1% solution) 5,5 – 6,5
<b>[α]<sub>D</sub> (c1; H<sub>2</sub>O, 20°C):</b>	-31,0° to -33,0°
<b>Water:</b>	max. 0,5%
<b>Dioxan:</b>	during the processing, dioxan was not used

### 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 upto 50 mg/mL

For Research use only

## 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  $\beta$ -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 Escherichiacoli. IPTG functions by binding to the lacI repressor and altering its conformation, which prevents the repression of the  $\beta$ - galactosidase coding gene lacZ.

## Analytical data

HPLC: >99% pure

For Research use only