

## Certificate of Analysis

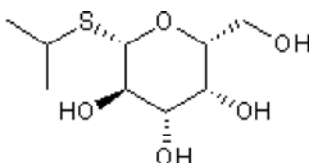
[www.tocris.com](http://www.tocris.com)

**Product Name:** IPTG  
**CAS Number:** 367-93-1  
**IUPAC Name:** 1-Methylethyl 1-thio-β-D-galactopyranoside

**Catalog No.:** 5509      **Batch No.:** 3  
**EC Number:** 206-703-0

### 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S  
**Batch Molecular Weight:** 238.3  
**Physical Appearance:** White solid  
**Solubility:** water to 100 mM  
**Storage:** Store at +4°C  
**Batch Molecular Structure:**



### 2. ANALYTICAL DATA

**HPLC:** Shows 99.5% purity  
**Optical Rotation:** [α]<sub>D</sub> = -31.2 (Concentration = 1, Solvent = Water)  
**Dioxane content (GLC):** <1ppm  
**pH (5% aqueous solution):** 6.5

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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## Product Information

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IUPAC Name: 1-Methylethyl 1-thio-β-D-galactopyranoside

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**Batch No.:** 3

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**Description:**

Used in combination with X-GAL (Cat. No. 5510) in cloning procedures requiring expression of β-galactosidase activity. Non-metabolizable analog of galactose. This product has <0.1% dioxane content.

**Physical and Chemical Properties:**

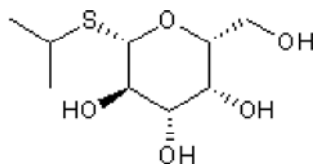
Batch Molecular Formula: C<sub>9</sub>H<sub>18</sub>O<sub>5</sub>S

Batch Molecular Weight: 238.3

Physical Appearance: White solid

**Minimum Purity:** ≥99%

**Batch Molecular Structure:**



**Storage:** Store at +4°C

**Solubility & Usage Info:**

water to 100 mM

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

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