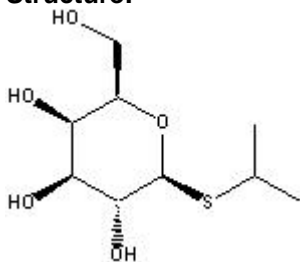


TECHNICAL INFORMATION

Catalog Number: 102101, 194029

Isopropyl-beta-D-thiogalactopyranoside

Structure:



Molecular Formula: C₉H₁₈O₅S

Molecular Weight: 238.3

CAS # : 367-93-1

Synonyms: I-Propyl-b-D-thiogalactopyranoside; IPTG; Isopropyl-b-D-thiogalactoside

Physical Description: White to off white crystalline powder

Solubility: Soluble in methanol and water (50 mg/ml - clear, colorless solution). Solutions can be sterile filtered using a 0.2 um filter.

Description: A beta-Galactosidase inducer by inducing the *lac* operon. An analog of galactose which is not cleaved by *E. coli* beta-galactosidase. beta-Galactosidase positive colonies can be detected by X-GAL ([5-Bromo-4-chloro-3-indolyl-beta-D-galactopyranoside, MP catalog number 150001](#)). IPTG functions by binding to the *lacI* repressor and altering its conformation, which prevents the repression of the beta-galactosidase coding gene *lacZ*. The final concentration typically used in indicator plates is 0.2 mM.

Availability:

Catalog Number	Description	Size
102101	Isopropyl-beta-D-thiogalactopyranoside	25 mg 100 mg 250 mg 500 mg 1 g 5 g
194029	Isopropyl-beta-D-thiogalactopyranoside, molecular biology reagent	100 mg 250 mg 500 mg 1 g 5 g 10 g

Also Available:

Catalog Number	Description	Size
150001	5-Bromo-4-chloro-3-indolyl-beta-D-galactopyranoside (X-Gal)	5 mg 10 mg 50 mg 100 mg 250 mg 500 mg 1 g

References:

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– Lough, J., Jackson, M., Rebecca, M. and Moyer, R., "Bisulfite-induced cytosine deamination rates in *E. coli* SSB:DNA complexes." *Mutation Research/Fundamental and Molecular Mechanisms of Mutagenesis*, v. **478:1-2**, 191-197 (2001).

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