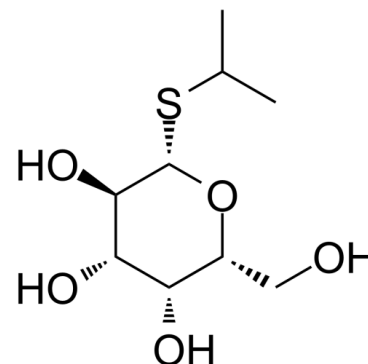


Data Sheet

Product Name:	IPTG
Cat. No.:	CS-3040
CAS No.:	367-93-1
Molecular Formula:	C ₉ H ₁₈ O ₅ S
Molecular Weight:	238.30
Target:	Others
Pathway:	Others
Solubility:	DMSO : ≥ 60 mg/mL (251.78 mM)



BIOLOGICAL ACTIVITY:

IPTG is a molecular mimic of allolactose, a lactose metabolite that triggers transcription of the lac operon, and it is therefore used to induce protein expression where the gene is under the control of the lac operator. **In Vitro:** IPTG uptake by E. coli can be independent of the action of lactose permease, since other transport pathways are also involved. At low concentration, IPTG enters cells through lactose permease, but at high concentrations (typically used for protein induction), IPTG can enter the cells independently of lactose permease^[1].

References:

[1]. Isopropyl β-D-1-thiogalactopyranoside

CAIndexNames:

β-D-Galactopyranoside, 1-methylethyl 1-thio-

SMILES:

CC(C)S[C@@H]1O[C@H](O)[C@@H](O)[C@@H](CO)O[C@H]1O

Caution: Product has not been fully validated for medical applications. For research use only.

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