

Datasheet for IPTG-1000**IPTG****Overview**

Description:	IPTG (Isopropyl- β -D-thiogalactopyranosid) Inducer for Beta-Galactosidase Expression - IPTG-1000
Item No.:	IPTG-1000
Size:	1 g
Applications:	Biochemical Assay

Product Details

Background:	IPTG (isopropyl beta-D-thiogalactoside) Inducer for Beta-Galactosidase Expression acts as a molecular mimic of a lactose metabolite. The presence of IPTG triggers the activation of the lac operon for downstream gene transcription due to its binding the lac repressor. Due to the presence of a sulfur atom in IPTG, the cells cannot degrade the inducer and therefore its concentration remains constant. IPTG (isopropyl beta-D-thiogalactoside) Inducer for Beta-Galactosidase Expression is ideal for investigators in Immunology, Cell Biology, and Microbiology research.
Synonyms:	Isopropyl β -D-1-thiogalactopyranoside, IPTG

Target Details

Purity/Specificity:	IPTG is >99.0% (enzymatic)
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Application Details

Suggested Applications:	Biochemical Assay (Based on references)
Application Note:	IPTG (isopropyl beta-D-thiogalactoside) Inducer for Beta-Galactosidase Expression is utilized in cloning experiments to determine positive incorporation of a construct of interest as well as in inducing recombinant protein expression.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	1X

WB:	1X
Other:	DOE: 31MAY2028

Formulation

Physical State:	Solid
Concentration:	1 X

Shipping & Handling

Shipping Condition:	Dry Ice
Storage Condition:	Store container at -20° C prior to opening. Protect from moisture and light. No special shipping conditions or precautions are required.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Bottle

IPTG (Isopropyl- β -D-thiogalactopyranosid) Inducer for Beta-Galactosidase Expression

References

- Gurtler JB et al. Inactivation of Escherichia coli O157:H7 in Dairy Manure Compost with Alkaline Walnut Hull Biochar. *J Food Prot.* (2025)
- Gurtler JB et al. Minimum Concentrations of Slow Pyrolysis Paper and Walnut Hull Cyclone Biochars Needed to Inactivate Escherichia coli O157:H7 in Soil. *J Food Prot.* (2024)
- Gurtler JB et al. Inactivation of Desiccation-Resistant Salmonella on Apple Slices Following Treatment with ϵ -Polylysine, Sodium Bisulfate, or Peracetic Acid and Subsequent Dehydration. *J Food Prot.* (2024)

Disclaimer

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