

Specification

IPTG BioChemica

A1008

Physical Description:	Solid
Product Code:	A1008
Product Name:	IPTG BioChemica
Specifications:	Assay (HPLC): min. 99 % α 20°C/D; 1 %, H ₂ O: -28.5° - -34.5° pH (5 %; H ₂ O): 5.0 - 7.0 Dioxane: max. 0.0001 % Water (K.F.): max. 1.0 %
WGK:	1
Storage:	2 - 8°C protected from light
Shipment:	ambient temperature
Molecular Formula:	C ₉ H ₁₈ O ₅ S
M:	238.30 g/mol
CAS:	367-93-1
EINECS:	206-703-0
CS:	29329900
Comment	<p>The lactose-operon from <i>E. coli</i> is under negative control of the <i>Lac</i>-repressor protein, which specifically binds to the operator of the <i>E. coli</i>-genom. The most commonly used synthetic inducer of the <i>Lac</i>-operon is IPTG since it is both active at very low concentrations and not subject to enzymatic degradation. The final concentration differs from author to author (0.1 mM (2) - 1 mM (1) IPTG in LB-medium). For preparing a stock solution dissolve 100 mM or 500 mM IPTG in water or buffer, sterilize by filtration through a 0.22 µm filter and store at -20°C.</p>
Bibliography	<p>(1)Yansura, D.G. & Henner, D.J. (1984) <i>Proc. Natl. Acad. Sci. USA</i> 81, 439-443 Use of the <i>E.coli lac</i> repressor and operator to control gene expression in <i>B. subtilis</i>. (2)Cho, S. et al. (1985) <i>Biochem. Biophys. Res. Com.</i> 128, 1268-1273 Effect of IPTG concentration on the level of <i>Lac</i>-Operon induction in steady state <i>E. coli</i>.</p>

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