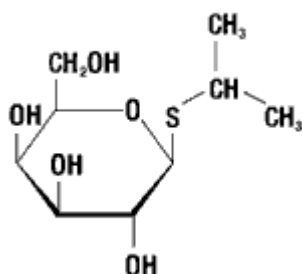


IPTG

(isopropyl-beta-D-thiogalactopyranoside)

Formula: C₉H₁₈O₅S

Molecular Weight: 238.3



Store: Store at -20°C

Code No.: ZB079

Package: 500g

Price: EUR(€)1500.00

Description

IPTG (isopropyl-beta-D-thiogalactopyranoside) is a highly stable synthetic analog of lactose. It inactivates the *lac* repressor and induces synthesis of beta-galactosidase, an enzyme that promotes lactose utilization. The IPTG is used to induce the expression of cloned genes which are under control of the *lac* operon. It is used in conjunction with X-Gal to determine the *lac* phenotype in blue/white colony screening.

Applications

- Blue/white colony screening, *see* Protocol for the Blue/White Colony Screening.
- Induces the expression of cloned genes that are under control of the *lac* promoter.

Quality Control

Dioxane-free.

Greater than 99% purity confirmed by HPLC.

Functionally tested in blue/white colony screening.

Note

- Preparation of a 23.83 mg/ml (100 mM) stock solution of IPTG in water is recommended.
- For blue/white screening, 0.1 mM final IPTG concentration in LB (Luria Broth) media is

Add: Floor 2 ,Building A,328# Wuhu Road, Shanghai 200233 China

Tel: +86-21-54460832

Fax: +86-21-54460831

Web: www.synthesisgene.com

E-mail: master@shinegene.org.cn

recommended.

Protocol for the Blue/White Colony Screening

For individual LB (Luria Broth) agar plates:

1. Pour sterile warm LB agar (about 25 ml) into a Petri dish.
2. Dry opened LB plates at room temperature under UV light for about 30 min.
3. Add 40 μ l of the X-Gal Solution (20 mg/ml), ready-to-use.
4. Add 40 μ l of 100 mM IPTG Solution, ready-to-use.
5. Spread evenly on the plate with a sterile spatula.

For batch use, add the following directly per 1 ml of the liquid LB agar (kept at about 50°C):

1. 1 μ l of X-Gal Solution (20 mg/ml), ready-to-use.
2. 1 μ l of 100 mM IPTG Solution, ready-to-use.
3. Mix well.
4. Pour 25 ml of prepared LB agar into each Petri dish.
5. Dry opened LB plates at room temperature under UV light for about 30 min.



Shanghai ShineGene Molecular Bio-tech Co.,Ltd.

Add: Floor 2 ,Building A,328# Wuhe Road, Shanghai 200233

Tel: +86-21-54460832

Fax:+86-21-54460831

E-mail:master@shinegene.org.cn

Website: www.synthesisgene.com