

IPTG(Isopropyl β -D- Thiogalactopyranoside)

Cat: I8070

Specification: 1g /5g /25g /100g

Storage: Store at 2-8°C, and it is valid for 5 years.

Product Information

CAS: 367-93-1

English name: IPTG(Isopropyl β -D- Thiogalactopyranoside)

Alias: Isopropyl- β -D-Thiogalactoside; IPTG

Appearance (Character): White powder

Molecular Formula: C₉H₁₈O₅S

Molecular Weight: 238.31

Purity: \geq 99.0%

Grade: Ultra Pure Grade

Solubility: 50 mg/ml in Water

Melting point: 110-114°C

Humidity (%): \leq 1.0

pH (5%, water): 5-7, 25°C

Specific optical rotation (1%, water):-34.0 ~ -29.0

Introduction

Isopropyl- β -D-thiogalactoside, also known as IPTG. As a comforting inducer, X-gal is a chromogenic substrate, and both are used together for blue-white spot screening. IPTG can induce the synthesis of the β -galactosidase amino-terminal fragment within the DNA segment of the lac operon, which can complement the defective β -galactosidase encoded by the host cell, achieving α -complementation. The bacteria with α complementation are exposed to IPTG and spread on a medium containing X-gal chromogenic substrate, which can form blue colonies. The insertion of exogenous DNA into the multicloning site of the plasmid can disrupt the α -complementarity, resulting in white colonies.

Instructions for use:

IPTG stock solution, first dissolve 2g in 8ml distilled water, dilute to 10ml, filter with a 0.22 μ m filter to remove bacteria, and store at -20°C

Note

1. Unless otherwise specified, the biochemical reagents produced by our company are generally non-sterile packaged. If they are to be used for cell experiments, please conduct pretreatment in advance.
2. Once dissolved, please store the solution in separate containers to avoid product degradation caused by repeated freezing and thawing.

3. The product information is for reference only. If you have any questions, please call 400-968-6088 for consultation.
4. The products are all for scientific research use only. Do not use it for medical, clinical diagnosis or treatment, food and cosmetics, etc. Do not store them in ordinary residential areas.
5. For your safety and health, please wear laboratory clothes, disposable gloves and masks to operate.