

# J.T.Baker<sup>®</sup> brand



## High-purity, cGMP-manufactured Isopropyl-beta-D-Thiogalactopyranoside (IPTG)



### HIGHLIGHTS

- cGMP manufactured under ICHQ7
- High-purity (>98% by HPLC)
- Low microbial, trace metals and endotoxin content
- Consistent lot-to-lot protein induction performance
- TSE/BSE-free
- 1,4-Dioxane-free

Reduce risk in your bioprocessing applications with Avantor J.T.Baker brand cGMP manufactured IPTG

J.T.Baker brand cGMP manufactured IPTG is performance tested to assure consistent lot-to-lot biological induction and processed to remove and control product/process related impurities, with minimal lot to lot variability for improved protein expression.

Packaged in moisture permeation resistant controlled packaging, J.T.Baker brand cGMP manufactured IPTG is fully validated and documented through Batch Process Records (BPR), including analytical test data, stability protocol and impurity profile.

**cGMP manufactured IPTG facilitates constant and consistent recombinant protein production resulting in more predictable yields.**

## APPLICATION INFORMATION

IPTG is a biotech reagent for protein production, used during microbial fermentation to induce the expression of recombinant proteins controlled by lac operon.

As a molecular mimic of allolactose, IPTG is a non-hydrolyzable galactose derivative that induces transcription of the gene in lac operon by binding to and inactivating the lac repressor. Unlike lactose, IPTG is not metabolized by cells, thus eliminating the need for continuous monitoring of the inducer concentration during protein expression. Additionally, because IPTG concentration remains constant, high titer production and consistent protein expression of genes controlled by the lac operon can be achieved.

The optimum concentration of IPTG used for inducing protein expression should be empirically determined as it can depend upon multiple factors, such as the strength of induction required, cellular genotype, etc.

IPTG is also a commonly used inducer in conjunction with X-Gal in blue-white color screen for rapid identifying recombinant bacterial colonies.

**Additionally, unlike lactose, IPTG is non-animal derived eliminating the need for TSE documentation/testing.**

## PRODUCT NUMBERS

Pk	Cat. No
10 g	JTV264-01
100 g	JTV264-02
1 kg	JTV264-05

For more information, contact your Avantor account manager today.