

## X-Gal Solution (20 mg/mL)

Cat. No.: X1520260 | Pack size: 1 mL, 5 mL | Storage: Protected from light, Store at -20°C

### Overview

X-Gal is an inert chromogenic substrate for  $\beta$ -galactosidase. It is colorless itself, but upon hydrolysis by  $\beta$ -galactosidase, it produces colorless galactose and 4-chloro-3-bromo-indigo, which forms a deep blue precipitate, facilitating visual observation or instrument detection. IPTG can induce the expression of the lacZ gene, thereby promoting the hydrolysis of X-Gal by  $\beta$ -galactosidase, resulting in the formation of blue colonies. It is commonly used for in situ staining detection of  $\beta$ -galactosidase and for blue-white screening.

### Main Applications

- **Blue-White Colony Screening:** Used to distinguish recombinant colonies (white) from non-recombinant colonies (blue). It is a commonly used screening method in molecular cloning.
- **Eukaryotic Cell Detection:** Enables visualization of  $\beta$ -galactosidase reporter gene expression in transfected eukaryotic cells, providing a direct reflection of reporter gene expression levels.
- **Activity Assay:** Used for detecting  $\beta$ -galactosidase activity in immunological and histochemical procedures, aiding research into related molecular mechanisms.

### Instructions (For Reference Only)

Operate according to the specific requirements of the experiment.

### Precautions

- During storage and use of the solution, avoid repeated freeze-thaw cycles to prevent affecting product activity and stability.
- To ensure the safety and health of experimental personnel, please wear a laboratory coat and disposable gloves during operation to avoid direct skin contact.

### Specifications

Property	Value
Synonyms	5-Bromo-4-Chloro-3-Indolyl- $\beta$ -D-Galactopyranoside
Specifications & Purity	BioReagent

Property	Value
Stability And Storage	Store at -20°C long term (12 months). Store in the dark. Avoid freeze/thaw cycle.
Storage Conditions	Protected from light,Store at -20°C
Shipped In	Ice chest + Ice pads This product requires cold chain shipping. Ground and other economy services are not available.

## Contact & Global Offices

Whether you have a technical question, need help with a quotation, or want to inquire about an order, our regional teams are ready to assist. Please contact the office for your region; for general inquiries, the North American office is the corporate primary.

<p>NORTH AMERICAN SALES, SUPPORT &amp; GENERAL INQUIRIES</p> <p><b>Aladdin Scientific Corporation</b></p> <p>14078 Meridian Parkway, Riverside, CA 92518, USA</p> <p><b>Phone:</b> 1-833-552-7181</p> <p><b>Sales:</b> sales@aladdinsci.com</p> <p><b>Customer Service:</b> custserv@aladdinsci.com</p>	<p>EU SALES, LOGISTICS &amp; LOCALIZED SUPPORT</p> <p><b>Aladdin Biochem Deutschland GmbH</b></p> <p>Westring 2, 33142 Büren, Germany</p> <p><b>Phone:</b> +02951 9383958</p> <p><b>Support:</b> support.eu@aladdinsci.com</p>
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## Limitations & Disclaimer

- For Research Use Only (RUO). Not for use in human or animal diagnostics, therapeutics, or in vivo applications. Not for food, cosmetic, or household use.
- This product is not a CE-marked in vitro diagnostic device under IVDR (EU) 2017/746 and is not an FDA-cleared device under 21 CFR. Use is restricted to verified businesses, institutions, and qualified professionals for research and development purposes.
- Where any kit component is classified as hazardous under CLP (EC) 1272/2008 or OSHA HCS (29 CFR 1910.1200), the product Safety Data Sheet (SDS) takes precedence over this document for handling, storage, and disposal information.
- Performance depends on sample type, sample condition, handling, and operator technique. Users are responsible for validating the kit for their specific application.
- Aladdin product labels, SDS, COA, and approved specifications take precedence over this document. If product formulation, label, SDS, storage conditions, pack size, or quality specifications change, this document must be reviewed and reissued.