

# X- $\alpha$ -Gal for Yeast Two-Hybrid Screening

X- $\alpha$ -Gal from USB is a chromogenic substrate used to detect  $\alpha$ -galactosidase activity<sup>(1)</sup>. In yeast,  $\alpha$ -galactosidase is encoded by the *MEL1* gene, which is expressed in response to GAL4 activation. Upon expression, this secreted enzyme hydrolyzes X- $\alpha$ -Gal in the surrounding media causing the yeast colonies to turn blue<sup>(2)</sup>. This assay can be used to detect protein-protein interactions based on the GAL4 yeast two-hybrid method. Since the results are immediate and cells are not lysed, this assay offers a sensitive and convenient alternative to traditional  $\beta$ -galactosidase liquid and filter-lift assays.



X- $\alpha$ -Gal should be dissolved in dimethylformamide (DMF) at 20 mg/ml in glass or polypropylene bottles. Store at  $-20^{\circ}\text{C}$  in the dark. Add to autoclaved agar media that has cooled ( $\sim 55^{\circ}\text{C}$ ) at 20 - 40 mg/L or spread diluted X- $\alpha$ -Gal solution (2 mg/ml in DMF) on pre-made plates at 200 - 400  $\mu\text{l}$  per 15-cm plate or 100 - 200  $\mu\text{l}$  per 10-cm plate. Let plates dry before spreading cells.

## X- $\alpha$ -Gal **ULTRAPURE**

(5-Bromo-4-Chloro-3-Indolyl- $\alpha$ -D-Galactopyranoside)



Formula Weight: 408.63

Form: White to off-white crystalline powder

Purity (TLC):  $\geq 99.0\%$

Storage:  $-20^{\circ}\text{C}$ , protect from moisture

### References:

1. AHO, S., *et al.* (1997) *Anal. Biochem.* **253**, 270–272.
2. LILJESTROM, P. L. (1985) *Nucleic Acids Res.* **13**, 7257–7268.

## X- $\alpha$ -Gal [26200]

Pack Size	List Price
100 mg	\$194.00
500 mg	\$670.00

This chemical substance is NOT specifically listed on the EPA TSCA Inventory. It is supplied for research and development use only, by or directly under the supervision of technically qualified individuals. NOT for manufacturing or commercial purposes.

The health risks associated with this product have not been fully determined. All individuals handling this material must be adequately warned of any known or suspected risks and documentation of all actions taken recorded. Any information which becomes available will be provided on the Material Safety Data Sheet.

## Related Products:

**BCIP** (5-Bromo-4-Chloro-3-Indolyl Phosphate, Disodium Salt) [12387]

25 mg	\$12.00
50 mg	\$22.00
100 mg	\$31.00
500 mg	\$138.00
1 gm	\$230.00

**Indigal** (5-Bromo-3-Indolyl- $\beta$ -D Galactopyranoside) [17542]

100 mg	\$49.00
1 gm	\$259.00

**NBT** (p-NitroBlue Tetrazolium Chloride) [19535]

250 mg	\$22.00
500 mg	\$37.00
1 gm	\$74.00
5 gm	\$353.00
10 gm	\$688.00

**X-GAL** (5-Bromo-4-Chloro-3-Indolyl- $\beta$ -D-Galactoside) [10077]

100 mg	\$32.00
250 mg	\$55.00
1 gm	\$156.00
2 gm	\$235.00
5 gm	\$461.00

**X-Gal-IPTG Solution** [26205]

1.5 ml	\$29.00
10 ml	\$71.00
50 ml	\$173.00

**X-GLUC** (5-Bromo-4-Chloro-3-Indolyl- $\beta$ -D-Glucuronic Acid, Cyclohexylammonium Salt) [12388]

10 mg	\$46.00
25 mg	\$84.00
100 mg	\$286.00

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# X-Gal-IPTG Solution

ULTRAPURE

X-Gal-IPTG Solution is a ready-to-use, non-toxic solution that facilitates handling and saves time while providing optimal blue/white colony screening. The solution does not contain DMF or DMSO. X-Gal-IPTG Solution is compatible with commonly used lacZ expression systems in bacteria, yeast and mammalian cells.

## Storage:

The formulation is stable when stored at 4°C. Once added to agar, plates are stable for up to 6 months when stored in the dark at 4°C

## Testing:

Each batch is tested with bacterial clones carrying either a high or low copy plasmid vector. Sterility of the product is ensured by filtration through a 0.2 micron membrane.

## To use:

For blue/white colony screening, spread 100 µl per plate or, alternatively, mix 100 µl of X-Gal-IPTG Solution with 25 ml of molten agar (< 45°C) and pour in a petri dish.

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**X-α-Gal** (5-Bromo-4-Chloro-3-Indolyl-alpha-D-Galactopyranoside) [26200]

100 mg .....	\$194.00
500 mg .....	\$670.00

**X-GLUC** (5-Bromo-4-Chloro-3-Indolyl-β-D-Glucuronic Acid, Cyclohexylammonium Salt) [12388]

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