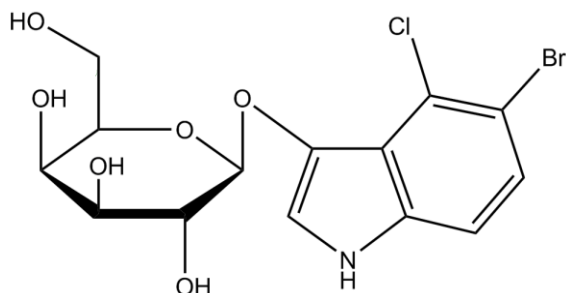


Product Information Sheet



X874
X-Gal

Synonym: 5-Bromo-4-chloro-3-indolyl-β-D-galactopyranoside

CAS: 7240-90-6

Formula: C₁₄H₁₅BrClNO₆

Molecular Wt: 408.63

Properties:

Form: Powder

Appearance: White Powder

Application: Molecular Biology

Solubility: DMSO or KOH

Storage Temp: -20 to 0° C

Storage Temp of Stock Solution: Stock solution is stable for 6-12 month when store at -20 to 0°C. Discard

Stock Solution: when solution turns pink.

Application Notes:

X-Gal is also known 5-Bromo-4-chloro-3-indolyl-β-D-galactopyranoside consists of a galactoside and an indole. When β-galactosidase is present, it cleaves the bond between the galactoside and indole forming a galactose and 5-bromo-4-chloro-3-hydroxyindole. The 5-bromo-4-chloro-3-hydroxyindole oxidizes to form an insoluble blue dimer. In molecular biology, X-Gal is used as a reporter gene in the detection of β-galactosidase activity, while in cloning it is used to detect foreign DNA that was inserted into the lac Z region of DNA plasmid.

Blue/White Colony Screening:

1. Dissolve X-Gal in DMF (dimethylformamide) or DMSO (dimethyl sulfoxide) (Prod. No. D241) to make a 20 mg/ml solution. Wrap in aluminum foil to protect from light.
2. Prepare IPTG (Prod. No. I373) by dissolving 2 g in 8 ml of H₂O, then adjust level to 10 ml and filter sterilize using a 0.22-micron filter. Dispense into 1mL aliquots.
3. Store both solutions at -20°C. Avoid freeze/thaw cycles as this can cause false results.
4. For use, spread 40 μL of stock X-gal and 4 μL of IPTG onto surface of pre-made LB (prepared using LB Agar, Prod. No. L465) plate.

India Contact

Life Technologies (India) Pvt Ltd.

306, Agarwal City Mall, Road 44, Pitampura, Delhi - 110034 (India)

Tel: +91-11-4220-8000; 4220-8111; 4220-8222 Fax: +91-11-4220-8444, Mobile: +91-98105-21400

Email - customerservice@lifetechindia.com | customerservice@atzlabs.com