

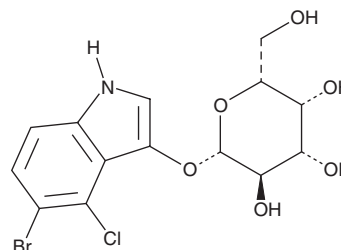
PRODUCT INFORMATION



X-Gal

Item No. 16495

CAS Registry No.: 7240-90-6
Formal Name: 5-bromo-4-chloro-1H-indol-3-yl-β-D-galactopyranoside
Synonyms: BCIG, X-β-Gal,
5-bromo-4-chloro-3-indolyl-β-D-Galactopyranoside
MF: C₁₄H₁₅BrClNO₆
FW: 408.6
Purity: ≥98%
UV/Vis.: λ_{max}: 233, 292 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

X-gal is supplied as a crystalline solid. A stock solution may be made by dissolving the X-gal in the solvent of choice, which should be purged with an inert gas. X-gal is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of X-gal in these solvents is approximately 30 mg/ml.

X-gal is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, X-gal should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. X-gal has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

X-Gal is a chromogenic substrate for β-galactosidase.¹ Upon cleavage by β-galactosidase, a blue pigment is released that can be used as a marker of β-galactosidase activity. X-Gal has been used for the detection of lacZ activity in reporter assays and in the determination of protein-protein interactions.^{2,3}

Reference

1. Burn, S.F. Detection of β-galactosidase activity: X-gal staining. *Methods Mol. Biol.* **886**, 241-250 (2012).
2. Bout, A., Valerio, D., and Scholte, B.J. In vivo transfer and expression of the lacZ gene in the mouse lung. *Exp. Lung Res.* **19(2)**, 193-202 (1993).
3. Möckli, N. and Auerbach, D. Quantitative β-galactosidase assay suitable for high-throughput applications in the yeast two-hybrid system. *Biotechniques* **36(5)**, 872-876 (2004).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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