

Product Information

5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine salt

Tablets

B0274

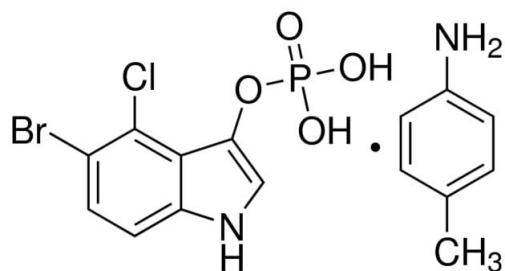
Product Description

Synonyms: BCIP® *p*-toluidine salt, X-phosphate *p*-toluidine salt (5-Bromo-4-chloro-3-indolyl phosphate *p*-toluidine component)

CAS Registry Number: 6578-06-9 (BCIP® component)

Molecular Formula: C₈H₆BrClNO₄P • C₇H₉N (BCIP® component)

Molecular Weight: 433.62 (BCIP® component)



5-Bromo-4-chloro-3-indolyl phosphate (BCIP®) *p*-toluidine salt is the substrate of choice for use with alkaline phosphatase in immunoblotting and immunohistological staining procedures.¹ High assay sensitivity is accomplished via amplification when BCIP® is used in conjunction with nitro blue tetrazolium (NBT) tablets (Cat. No. N5514). This substrate system produces an insoluble end product that is blue in color and can be observed visually.^{2,3}

Several dissertations have cited use of product B0274 in their research protocols.⁴⁻⁷

Reagent

Each tablet contains 25 mg of substrate. The tablets are packaged either as 10 tablets (10TAB) or 25 tablets (25TAB) per bottle.

Precautions and Disclaimer

This product is for R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store tablets at -20 °C. Protect from heat, light, and moisture. Allow tablets to reach room temperature before use.

Preparation Instructions

BCIP® Stock Solution: Dissolving one 25 mg tablet in 1 mL of DMF (dimethylformamide).

NBT Stock Solution: Dissolve one NBT tablet (10 mg substrate content, Cat. No. N5514) in 1 mL of water.

Substrate Buffer (0.1 M Tris, pH 9.5, with 100 mM NaCl, and 5 mM MgCl₂):

- Combine 12.11 g of Tris Base (such as Cat. No. T1503), 5.84 g of NaCl (Cat. No. S9625), and 1 g of MgCl₂ (Cat. No. M0250).
- Adjust pH to 9.5 with HCl.
- Then bring the volume to 1 L.

Substrate Solution:

- Add 330 µL of NBT Stock Solution to 10 mL of Substrate Buffer. Mix.
- Then add 33 µL of BCIP Stock Solution. Mix again.

References

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2. Blake, M.S. et al., *Anal. Biochem.*, **136(1)**, 175-179 (1984).
3. Horowitz, J.P. et al., *J. Med. Chem.*, **9(3)**, 447 (1966).
4. O'Driscoll, Lorraine, "Investigation of Mechanisms of Multiple Drug Resistance using Polymerase Chain Reaction". Dublin City University, Ph.D. dissertation, p. 104 (1994).
5. Huss-Marp, Johannes, "Untersuchung zur Bedeutung der relativen Luftfeuchte für die Allergenfreisetzung aus Pollen" ("Investigation of the importance of relative humidity for allergen release from pollen"). Technischen Universität München, Dr. med. dissertation, pp. 27, 41, 42 (2000).
6. Lindy, Otso, "Inflammation and tissue destruction in arthritides and periodontal disease". University of Helsinki, Ph.D. dissertation, p. 36 (2008).
7. Büller, Nikè Vittoria Justitia Anna, "Intestinal Hedgehog Signaling in tumors and inflammation". Universiteit van Amsterdam, Ph.D. dissertation, p. 50 (2015).

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