

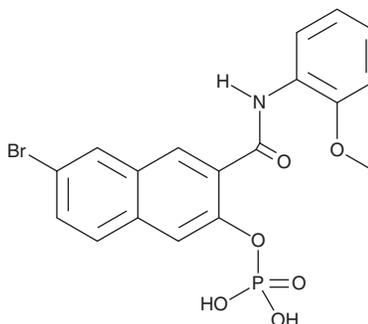
PRODUCT INFORMATION



Naphthol AS-BI-Phosphate

Item No. 21845

CAS Registry No.: 1919-91-1
Formal Name: 7-bromo-N-(2-methoxyphenyl)-3-(phosphonooxy)-2-naphthalenecarboxamide
Synonyms: Naphthol AS-BI Phosphoric Acid, N-ASBI-P
MF: C₁₈H₁₅BrNO₆P
FW: 452.2
Purity: ≥95%
UV/Vis.: λ_{max}: 242 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

Naphthol AS-BI-phosphate is supplied as a crystalline solid. A stock solution may be made by dissolving the naphthol AS-BI-phosphate in the solvent of choice. Naphthol AS-BI-phosphate is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of naphthol AS-BI-phosphate in ethanol is approximately 2 mg/ml and approximately 20 mg/ml in DMSO and DMF.

Naphthol AS-BI-phosphate is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, naphthol AS-BI-phosphate should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Naphthol AS-BI-phosphate has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Naphthol AS-BI-phosphate is a fluorogenic substrate for acid and alkaline phosphatases.^{1,2} Naphthol AS-BI-phosphate is converted to naphthol AS-BI (N-ASBI) which displays excitation/emission spectra of 405/515 nm, respectively. N-ASBI fluorescence is a quantitative marker of acid and alkaline phosphatase activity.^{1,2} The concentration of human acid and alkaline phosphatases undergo pronounced changes in particular diseases, resulting in unusually high or low concentrations. Thus, acid and alkaline phosphatases are often used as clinical markers of disease.^{3,4}

References

1. Vaughan, A., Guilbault, G.G. and Hackney, D. Fluorometric methods for analysis of acid and alkaline phosphatase. *Anal. Chem.* **43(6)**, 721-724 (1971).
2. Janckila, A. J., Takahashi, K., Sun, S.Z., *et al.* Naphthol-ASBI phosphate as a preferred substrate for tartrate-resistant acid phosphatase isoform 5b. *J. Bone Miner Res.* **16(4)**, 788-793 (2001).
3. Bull, H., Murray, P.G., Thomas, D. *et al.* Acid phosphatases. *Mol. Pathol.* **55(2)**, 65-72 (2002).
4. Yam, L.T. Clinical significance of the human acid phosphatases. *Am. J. Med.* **56(5)**, 604-616 (1974).

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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