

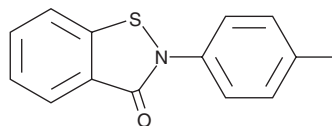
PRODUCT INFORMATION



PBIT

Item No. 16272

CAS Registry No.: 2514-30-9
Formal Name: 2-(4-methylphenyl)-1,2-benzisothiazol-3(2H)-one
Synonym: 2-p-tolyl-1,2-Benzisothiazolin-3-one
MF: C₁₄H₁₁NOS
FW: 241.3
Purity: ≥98%
UV/Vis.: λ_{max}: 259, 331 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

PBIT is supplied as a A crystalline solid. A stock solution may be made by dissolving the PBIT in the solvent of choice, which should be purged with an inert gas. PBIT is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of PBIT in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DMF.

PBIT is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, PBIT should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. PBIT has a solubility of approximately 0.1 mg/ml in a 1:6 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

PBIT is a reversible, cell-permeable inhibitor of JARID1 family demethylases (IC₅₀s = 6, 3, 4.9, and 28 μM for JARID1A, JARID1B, JARID1C, and JARID1D, respectively).¹ It does not significantly affect the activity of UTX and JMJD3 demethylases.¹ It increases trimethylation of H3K4 in HeLa cells and blocks the proliferation of tumor cells expressing high levels of JARID1B.¹

Reference

1. Sayegh, J., Cao, J., Zou, M.R., *et al.* Identification of small molecule inhibitors of Jumonji AT-rich interactive domain 1B (JARID1B) histone demethylase by a sensitive high throughput screen. *J. Biol. Chem.* **288**(13), 9408-9417 (2013).

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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