



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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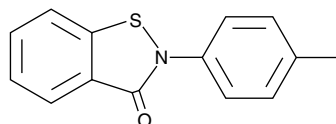
# Product Information



## PBIT

Item No. 16272

**CAS Registry No.:** 2514-30-9  
**Formal Name:** 2-(4-methylphenyl)-1,2-benzisothiazol-3(2H)-one  
**MF:** C<sub>14</sub>H<sub>11</sub>NOS  
**FW:** 241.3  
**Purity:** ≥98%  
**Stability:** ≥2 years at -20°C  
**Supplied as:** A crystalline solid  
**UV/Vis.:** λ<sub>max</sub>: 259, 331 nm



### Laboratory Procedures

For long term storage, we suggest that PBIT be stored as supplied at -20°C. It should be stable for at least two years. PBIT is supplied as a crystalline solid. A stock solution may be made by dissolving the PBIT in the solvent of choice. PBIT is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of PBIT in ethanol is approximately 1 mg/ml and approximately 10 mg/ml in DMSO and DME.

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.

Jumonji AT-rich interactive domain 1 (JARID1) demethylases mediate the removal of methyl groups from trimethylated lysine 4 on histone 3 (H3K4me3). PBIT is a reversible, cell-permeable inhibitor of JARID1 family demethylases (IC<sub>50</sub>s = 6, 3, 4.9, and 28 μM for JARID1A, JARID1B, JARID1C, and JARID1D, respectively).<sup>1</sup> It does not significantly affect the activity of UTX and JMJD3 demethylases.<sup>1</sup> It increases trimethylation of H3K4 in HeLa cells and blocks the proliferation of tumor cells expressing high levels of JARID1B.<sup>1</sup>

### 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).

### Related Products

For a list of related products please visit: [www.caymanchem.com/catalog/16272](http://www.caymanchem.com/catalog/16272)

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**WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.**

#### SAFETY DATA

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