

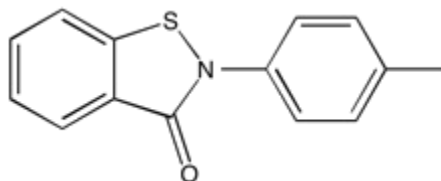
**Catalog # 10-1595**

**PBIT**

CAS# 2514-30-9

2-(4-Methylphenyl)-1,2-benzisothiazol-3(2H)-one

Lot # X106625



PBIT is a potent and selective inhibitor of the lysine demethylase JARID1 ( $IC_{50}$  = 3, 4.9 and 6  $\mu$ M for JARID1B, 1A and 1C, respectively). The JARID1 (Jumonji AT-Rich Interactive Domain 1) family demethylates the trimethylated lysine 27 in histone H3 (H3K4me3). Selective for JARID1 over UTX and JMJD3. Treatment of cells with PBIT inhibits the demethylation of H3K4me3. It inhibits proliferation of breast cancer cell lines expressing high levels of JARID1B<sup>1</sup>.

- 1) Sayegh *et al.* (2013), *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** 9408

**PHYSICAL DATA**

Molecular Weight:	241.31
Molecular Formula:	C <sub>14</sub> H <sub>11</sub> NOS
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 24 mg/ml), or Ethanol (up to 5 mg/ml)
Physical Description:	Off-white solid
Storage and Stability:	Store as supplied, desiccated at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 1 month.

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