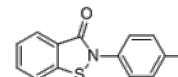


**Product Name** : PBIT  
**Cat. No.** : PC-21987  
**CAS No.** :  
**Molecular Formula** : C<sub>14</sub>H<sub>11</sub>NOS  
**Molecular Weight** : 241.31  
**Target** : Histone Demethylase  
**Solubility** : 10 mM in DMSO



## Biological Activity

PBIT is a specific small molecule inhibitor of JARID1 family of histone lysine demethylases (KDM5) with IC<sub>50</sub> of 3 μM for JARID1B (KDM5B or PLU1), inhibits H3K4me<sub>3</sub> demethylation in vitro and in vivo.

PBIT inhibits removal of H3K4me<sub>3</sub> by JARID1B in cells.

PBIT inhibits proliferation of cells expressing higher levels of JARID1B.

PBIT also inhibits other members of the JARID1 family, does not inhibit the H3K27me<sub>3</sub> demethylases ubiquitously transcribed tetratricopeptide repeat protein, X-linked (UTX) or JmjC domain-containing protein 3 (JMJD3).

PBIT is also a potent inhibitor of JARID1A and JARID1C, with IC<sub>50</sub> values of 6 and 4.9 μM, respectively.

PBIT is able to modulate H3K4me<sub>3</sub> levels in cells and attenuate proliferation of UACC-812 breast cancer cells.

## References

Sayegh J, et al. J Biol Chem. 2013 Mar 29;288(13):9408-17.

**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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