

tBID

## Chemical Properties

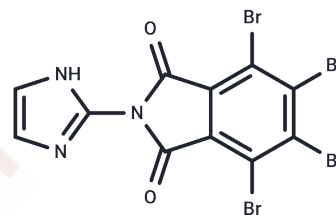
CAS No. : 1639895-85-4

Formula: C<sub>11</sub>H<sub>3</sub>Br<sub>4</sub>N<sub>3</sub>O<sub>2</sub>

Molecular Weight: 528.78

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	tBID is a selective homeodomain-interacting protein kinase 2 (HIPK2) inhibitor (IC <sub>50</sub> of 0.33 μM)
Targets(IC <sub>50</sub> )	Others,DYRK
In vitro	Homeodomain-interacting protein kinase 2 (HIPK2) is a Ser/Thr kinase that regulates cell proliferation and survival. TBID exhibits exceptional efficacy against HIPK2 with an IC <sub>50</sub> of 0.33 μM and a Gini coefficient of 0.592 out of a panel of 76 kinases. Although TBID also inhibits HIPK1 and HIPK3, it is less effective against these kinases. TBID acts competitively with ATP, consistent with modeling, and interacts with the hinge region through hydrophobic interactions with Val 213, Val 261, Phe 277, Leu 280, Met 331, and Ile 345, while the symmetric nitrogen atom at position 3 engages with the catalytic Lys 228, playing a crucial role in binding architecture.

## Solubility Information

Solubility	DMSO: 26 mg/mL (49.17 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.8911 mL	9.4557 mL	18.9115 mL
5 mM	0.3782 mL	1.8911 mL	3.7823 mL
10 mM	0.1891 mL	0.9456 mL	1.8911 mL
50 mM	0.0378 mL	0.1891 mL	0.3782 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Cozza G, et al. Synthesis and properties of a selective inhibitor of homeodomain-interacting protein kinase 2 (HIPK2). PLoS One. 2014 Feb 24;9(2):e89176.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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