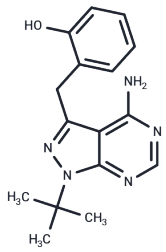
Data Sheet (Cat.No.T14022)

TargetMol

2OH-BNPP1

Chemical Properties



CAS No. : 833481-73-5

Formula: C16H19N5O

Molecular Weight: 297.36

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	2OH-BNPP1 is a BUB1 kinase, a Ser/Thr kinase inhibitor, it used for the treatment of cancer.
Targets(IC50)	Others
In vitro	2OH-BNPP1 disrupts TGFβ signaling by hindering the phosphorylation of key proteins involved in both the canonical and non-canonical TGFβ pathways across a variety of cancerous and normal cell lines in a dose-dependent manner[1]. At concentrations ranging from 0.1 to 50 μM, it effectively suppresses TGFβ signaling in a dose-dependent fashion.
In vivo	2OH-BNPP1 (50 mg/kg) inhibits TGFβ signaling in vivo and significantly reduces phosphorylated SMAD2 levels in tumor-bearing mice[1].

Solubility Information

Solubility	DMSO: ≥ 100 mg/mL (336.30 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 3.3 mg/mL (11.1 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3629 mL	16.8146 mL	33.6293 mL
5 mM	0.6726 mL	3.3629 mL	6.7259 mL
10 mM	0.3363 mL	1.6815 mL	3.3629 mL
50 mM	0.0673 mL	0.3363 mL	0.6726 mL

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

Nyati S, et al. The kinase activity of the Ser/Thr kinase BUB1 promotes TGF-β signaling. Sci Signal. 2015 Jan 6;8 (358):ra1.