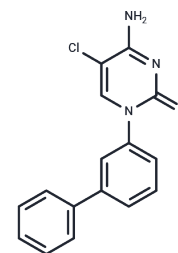


Bobcat339

Chemical Properties

CAS No. :	2280037-51-4
Formula:	C ₁₆ H ₁₂ ClN ₃ O
Molecular Weight:	297.74
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



Biological Description

Description	Bobcat339 is a novel cytosine-based TET enzyme inhibitor (IC ₅₀ s: 33/73 μM for TET1/2), but not DNMT3a, does not inhibit the DNA methyltransferase DNMT3a.
Targets(IC ₅₀)	DNA Methyltransferase
In vitro	HT-22 cells were treated with 10 μM Bobcat339 in 1% DMSO for 24 hrs and lysed. Cells treated with Bobcat339 had significantly reduced global 5hmC levels as compared to vehicle control.

Solubility Information

Solubility	DMSO: 11.59 mg/mL (38.93 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (6.72 mM),Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.3586 mL	16.7932 mL	33.5864 mL
5 mM	0.6717 mL	3.3586 mL	6.7173 mL
10 mM	0.3359 mL	1.6793 mL	3.3586 mL
50 mM	0.0672 mL	0.3359 mL	0.6717 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

- Chua GNL, et al. Cytosine-Based TET Enzyme Inhibitors. ACS Med Chem Lett. 2019 Jan 31;10(2):180-185.
- Shi Q, Liu R, Chen L. Ferroptosis inhibitor ferrostatin-1 alleviates homocysteine-induced ovarian granulosa cell injury by regulating TET activity and DNA methylation. Molecular Medicine Reports. 2022, 25(4): 1-9
- Xu X, Yuan X, Ni J, et al. MAGI2-AS3 inhibits breast cancer by downregulating DNA methylation of MAGI2. Journal of Cellular Physiology. 2021, 236(2): 1116-1130
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- Li F, Dai P, Shi H, et al. LKB1 inactivation promotes epigenetic remodeling-induced lineage plasticity and antiandrogen resistance in prostate cancer. Cell Research. 2025: 1-13.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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