

H3B-120

Chemical Properties

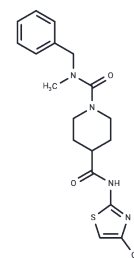
CAS No. : 2194903-42-7

Formula: C₁₉H₂₄N₄O₂S

Molecular Weight: 372.48

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	H3B-120 is a highly selective, competitive, and allosteric carbamoyl phosphate synthetase 1 (CPS1) inhibitor with an IC ₅₀ of 1.5 μM and a K _i of 1.4 μM, exhibiting anti-cancer activity.
Targets(IC ₅₀)	Potassium Channel
In vitro	H3B-120 (25, 50, 75, 100 μM) inhibits urea production in a dose-dependent manner, although the cellular potency decreases significantly compared with enzymatic assays. The half-life of H3B-120 is only 40 min. H3B-120 has no inhibition of CPS2 activity of CAD (CPS2, aspartyl transcarbamylase, dihydroorotase).

Solubility Information

Solubility	DMSO: 35 mg/mL (93.96 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 (5.37 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	2.6847 mL	13.4235 mL	26.8471 mL
5 mM	0.5369 mL	2.6847 mL	5.3694 mL
10 mM	0.2685 mL	1.3424 mL	2.6847 mL
50 mM	0.0537 mL	0.2685 mL	0.5369 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

Yao S, et al. Small Molecule Inhibition of CPS1 Activity through an Allosteric Pocket. Cell Chem Biol. 2020 Mar 19;27(3):259-268.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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