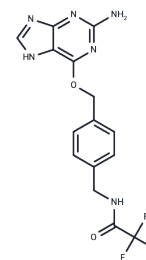


PIN1 inhibitor API-1

Chemical Properties

CAS No. :	680622-70-2
Formula:	C ₁₅ H ₁₃ F ₃ N ₆ O ₂
Molecular Weight:	366.3
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	PIN1 inhibitor API-1 is a specific Pin1 inhibitor (IC ₅₀ : 72.3 nM) that retains the active conformation of pXPO5, restoring its ability to transport pre-miRNAs from the nucleus to the cytoplasm, thereby up-regulating anticancer miRNA biogenesis to suppress hepatocellular carcinoma development both in vitro and in vivo. PIN1 inhibitor API-1 directly and specifically binds to the Pin1 peptidyl-prolyl isomerase domain, effectively inhibiting Pin1 cis-trans isomerizing activity.
Targets(IC ₅₀)	MicroRNA
In vitro	PIN1 inhibitor API-1 significantly suppresses SK-Hep-1, SNU-423, and Hep3B cell proliferation (IC ₅₀ =0.683-4.16 μM)[1].
In vivo	PIN1 inhibitor API-1 inhibits tumor growth by up-regulating mature miRNA biogenesis in mice [1].

Solubility Information

Solubility	DMSO: 250 mg/mL (682.5 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: 5 mg/mL (13.65 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	2.730 mL	13.650 mL	27.300 mL
5 mM	0.546 mL	2.730 mL	5.460 mL
10 mM	0.273 mL	1.365 mL	2.730 mL
50 mM	0.0546 mL	0.273 mL	0.546 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

Pu W, et al. Targeting Pin1 by inhibitor API-1 regulates microRNA biogenesis and suppresses hepatocellularcarcinoma development. Hepatology. 2018 Aug;68(2):547-560.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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