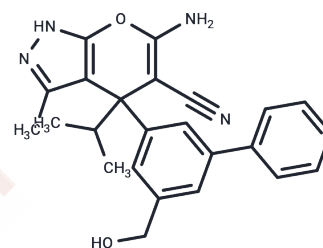


SHIN1

Chemical Properties

CAS No. :	2146095-85-2
Formula:	C ₂₄ H ₂₄ N ₄ O ₂
Molecular Weight:	400.47
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	SHIN1 (RZ-2994) is an inhibitor of human serine hydroxymethyltransferase 1 (SHMT1) with IC ₅₀ of 5 nM and human serine hydroxymethyltransferase 2 (SHMT2) with an IC ₅₀ of 13 nM.
Targets(IC ₅₀)	Others
In vitro	SHIN1 inhibits the growth of SHMT2 deletion HCT-116 cells (IC ₅₀ : 10 nM). SHIN1 inhibits SHMT1/2 in HCT-116 cells. SHIN1 is particularly active against B-cell malignancies. SHIN1 blocks cell growth through a progressive depletion of purines, leading to loss of nucleotide triphosphates [1].

Solubility Information

Solubility	DMSO: 50.5 mg/mL (126.1 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: 1 mg/mL (2.5 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	2.4971 mL	12.4853 mL	24.9707 mL
5 mM	0.4994 mL	2.4971 mL	4.9941 mL
10 mM	0.2497 mL	1.2485 mL	2.4971 mL
50 mM	0.0499 mL	0.2497 mL	0.4994 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

Ducker GS, et al. Human SHMT inhibitors reveal defective glycine import as a targetable metabolic vulnerability of diffuse large B-cell lymphoma. Proc Natl Acad Sci U S A. 2017 Oct 24;114(43):11404-11409.

Liufu T, Zhao X, Yu M, et al. Multiomics analysis reveals serine catabolism as a potential therapeutic target for MELAS. The FASEB Journal. 2024, 38(12): e23742.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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