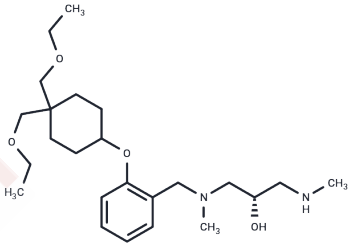
Data Sheet (Cat.No.T86005)

TargetMol

CARM1-IN-4

Chemical Properties



CAS No. : 2878481-07-1

Formula: C24H42N2O4

Molecular Weight: 422.60

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	CARM1-IN-4 (compound 11f) serves as a potent inhibitor of CARM1, exhibiting IC50 values of 9 nM for CARM1 and 56 nM for PRMT1. This compound significantly inhibits the proliferation of colorectal cancer cell lines and curtails the methyltransferase activity of CARM1, blocking the methylation of downstream proteins. Moreover, CARM1-IN-4 induces apoptosis and demonstrates notable antitumor activity [1].
Targets(IC50)	Apoptosis,Histone Methyltransferase
In vitro	CARM1-IN-4 (compound 11f) demonstrates significant antiproliferative activity in HCT116 cell lines, with an IC50 of 3.13 μM. Within a concentration range of 0.625 to 5 μM over 72 hours, CARM1-IN-4 induces apoptosis in a dose-dependent manner in HCT116 cells. Additionally, at concentrations of 0.625 to 10 μM over 48 hours, CARM1-IN-4 effectively inhibits CARM1's methyltransferase activity, affecting the asymmetrical dimethylation levels of CARM1 substrates. The compound also exhibits relatively high mitochondrial stability, with a half-life of 217 minutes in mouse mitochondria. Apoptosis analysis shows a marked increase in both early and late apoptotic HCT116 cells at concentrations of 0.625, 1.25, 2.5, and 5 μM after 72 hours. Western blot analysis reveals dose-dependent reductions in global asymmetric dimethylarginine (aDMA) and asymmetric dimethyl-PABP1 levels at concentrations ranging from 0.625 to 10 μM over 48 hours.
In vivo	CARM1-IN-4 (compound 11f; 10, 25 mg/kg/day; intraperitoneal injection; for 12 days) demonstrates a significant tumor-inhibitory effect in female BALB/c nude mice aged 6 to 8 weeks, harboring subcutaneous HCT116 xenografts [1]. Animal Model: 6 to 8-week-old female BALB/c nude mice with subcutaneous HCT116 xenograft [1] Dosage: 10, 25 mg/kg Administration: Intraperitoneal injection; daily; for 12 days Result: Showed evident inhibitory effect.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3663 mL	11.8315 mL	23.663 mL
5 mM	0.4733 mL	2.3663 mL	4.7326 mL
10 mM	0.2366 mL	1.1832 mL	2.3663 mL
50 mM	0.0473 mL	0.2366 mL	0.4733 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.

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