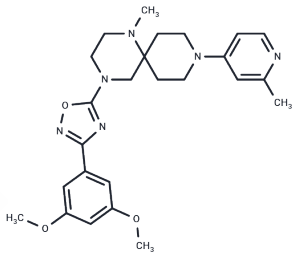
Data Sheet (Cat.No.T62957)

TargetMol

MRK-740

Chemical Properties



CAS No. : 2387510-80-5

Formula: C25H32N6O3

Molecular Weight: 464.56

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	MRK-740 is a potent and selective inhibitor of PRDM9 histone methyltransferase.MRK-740 inhibits other histone methyltransferases and inhibits PRDM9-dependent H3K4 trimethylation.
Targets(IC50)	Histone Methyltransferase
In vitro	After 24 hours of treatment, MRK-740 (3 μM) does not affect the growth of HEK293T cells at IC90, but some toxicity is observed at 10 μM. MRK-740 serves as an equivalent inhibitor of H3K4 methylation in MCF7 cells. In cells, MRK-740 selectively and directly inhibits H3K4 methylation at endogenous PRDM9 target sites[1].

Solubility Information

Solubility	DMSO: 30 mg/mL (64.58 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 (4.31 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1526 mL	10.7629 mL	21.5257 mL
5 mM	0.4305 mL	2.1526 mL	4.3051 mL
10 mM	0.2153 mL	1.0763 mL	2.1526 mL
50 mM	0.0431 mL	0.2153 mL	0.4305 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

Abdellah Allali-Hassani, et al. Discovery of a Chemical Probe for PRDM9. Nat Commun. 2019 Dec 17;10(1):5759.