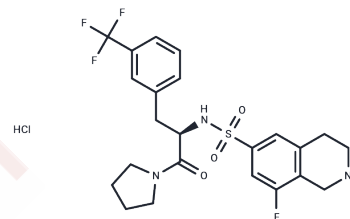


PFI-2 hydrochloride

Chemical Properties

CAS No. :	1627607-87-7
Formula:	C ₂₃ H ₂₆ ClF ₄ N ₃ O ₃ S
Molecular Weight:	535.98
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	PFI-2 hydrochloride ((R)-PFI-2 hydrochloride) is a potent, highly selective, and cell-active inhibitor of the methyltransferase activity of SETD7 (IC ₅₀ : 2 nM), 500 fold active than (S)-PFI-2.
Targets(IC ₅₀)	Histone Methyltransferase
In vitro	(R)-PFI-2 is highly selective (>1,000-fold) for SETD7, over a panel of 18 other human protein methyltransferases and DNMT1, and was shown to be inactive against 134 additional ion channel, GPCR, and enzyme targets (<35% inhibition at 10 μM). (R)-PFI-2 binds to SETD7 only in the presence of SAM. PFI-766, a biotinylated variant of (R)-PFI-2 that retains the ability to bind and inhibit SETD7 (IC ₅₀ 110 ± 26 nM in our in vitro enzymatic assay).

Solubility Information

Solubility	DMSO: 250 mg/mL (466.44 mM),Sonication is recommended. Ethanol: 10 mg/mL (18.66 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (18.66 mM),Solution. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (3.73 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	1.8657 mL	9.3287 mL	18.6574 mL
5 mM	0.3731 mL	1.8657 mL	3.7315 mL
10 mM	0.1866 mL	0.9329 mL	1.8657 mL
50 mM	0.0373 mL	0.1866 mL	0.3731 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

Barsyte-Lovejoy D, et al. (R)-PFI-2 is a potent and selective inhibitor of SETD7 methyltransferase activity in cells. Proc Natl Acad Sci U S A. 2014 Sep 2;111(35):12853-8.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481