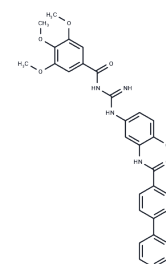


MRT-83

Chemical Properties

CAS No. :	1263131-92-5
Formula:	C ₃₁ H ₃₀ N ₄ O ₅
Molecular Weight:	538.59
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	MRT-83 is a potent Smo antagonist.
Targets(IC50)	Smo
In vitro	MRT-83 blocks BC binding to HEK-hSmo cells in a dose-dependent manner with an IC ₅₀ of 4.6 nM. MRT-83 abrogates BC binding to cells expressing mouse Smo with an IC ₅₀ of 14 nM, which is in good correlation with its IC ₅₀ in the Shh-light2 and alkaline phosphatase assays[1].
In vivo	MRT-83 can't up-regulation of Ptc transcription in the SVZ of these animals in agreement with complete inhibition of ShhN-mediated effects (8.7±2.4 Ptc+ cells/section, n=9) and is not different from vehicle-mediated effects[1].

Solubility Information

Solubility	DMSO: 55 mg/mL (102.12 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 (3.71 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	1.8567 mL	9.2835 mL	18.567 mL
5 mM	0.3713 mL	1.8567 mL	3.7134 mL
10 mM	0.1857 mL	0.9283 mL	1.8567 mL
50 mM	0.0371 mL	0.1857 mL	0.3713 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

Roudaut H, et al. Identification and mechanism of action of the acylguanidine MRT-83, a novel potent Smoothed antagonist. Mol Pharmacol. 2011 Mar;79(3):453-60.

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