

MRT-81

Chemical Properties

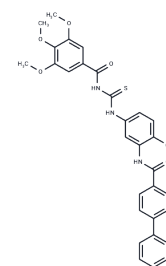
CAS No. : 1263132-08-6

Formula: C₃₁H₂₉N₃O₅S

Molecular Weight: 555.64

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-81 is a potent antagonist of human and rodent smoothened receptors that inhibits hedgehog activity with an IC ₅₀ value of 41 nM in Shh-light2 cells. It is used in the study of cancer.
Targets(IC ₅₀)	Hedgehog/Smoothened, Smo
In vitro	MRT-81 inhibits the differentiation of the mesenchymal pluripotent C3H10T1/2 cells into alkaline phosphatase positive osteoblasts induced by the Smo agonist SAG with 0.1 μM, with an IC ₅₀ value of 64 nM[1].

Solubility Information

Solubility	DMSO: 50 mg/mL (89.99 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Corn Oil: 2.5 mg/mL (4.5 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	1.7997 mL	8.9986 mL	17.9973 mL
5 mM	0.3599 mL	1.7997 mL	3.5995 mL
10 mM	0.180 mL	0.8999 mL	1.7997 mL
50 mM	0.036 mL	0.180 mL	0.3599 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

Solinas A, et al. Acylthiourea, acylurea, and acylguanidine derivatives with potent hedgehog inhibiting activity. J Med Chem. 2012 Feb 23;55(4):1559-71.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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