

RK-287107

Chemical Properties

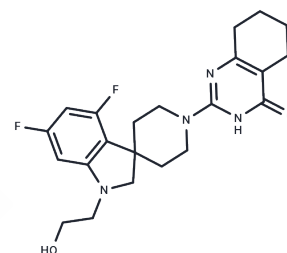
CAS No. : 2171386-10-8

Formula: C₂₂H₂₆F₂N₄O₂

Molecular Weight: 416.46

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	RK-287107 is an effective and specific inhibitor of tankyrase (IC ₅₀ s: 14.3 and 10.6 nM for tankyrase-1 and tankyrase-2, respectively).
Targets(IC ₅₀)	PARP
In vitro	RK-287107 (0.03-10 μM; 16 hours) also downregulates β-catenin signaling in cultured cells. 287107 (0.03-10 μM; 16 hours) induces the accumulation of tankyrase and Axin1/2. RK-87107 (0.01-10 μM; 12 hours) displays an antiproliferative effect on colorectal cancer cells harboring short adenomatous polyposis coli mutations. The 50% growth inhibition (GI ₅₀) value of RK-287107 on COLO-320DM cells is 0.449 μM. RK- [1].
In vivo	In a mouse xenograft model, RK-287107 (100 and 300 mg/kg; i.p. administration; once per day; 5-days on/ 2-days off schedule for 2 weeks) inhibits tumor growth [1].

Solubility Information

Solubility	DMSO: 120 mg/mL (288.14 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: 4 mg/mL (9.6 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	2.4012 mL	12.006 mL	24.0119 mL
5 mM	0.4802 mL	2.4012 mL	4.8024 mL
10 mM	0.2401 mL	1.2006 mL	2.4012 mL
50 mM	0.048 mL	0.2401 mL	0.4802 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

Mizutani A, et al. RK-287107, a potent and specific tankyrase inhibitor, blocks colorectal cancer cell growth in a preclinical model. *Cancer Sci.* 2018 Dec;109(12):4003-4014.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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