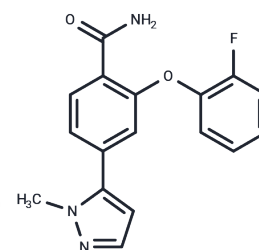


RBPJ Inhibitor-1

Chemical Properties

CAS No. :	2682114-39-0
Formula:	C17H14FN3O2
Molecular Weight:	311.31
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	RBPJ Inhibitor-1 (RIN1), a compound that impedes the functional interaction between RBPJ and SHARP, effectively inhibits NOTCH-dependent tumor cell proliferation[1].
Targets(IC50)	Gamma-secretase
In vitro	RBPJ Inhibitor-1 (RIN1) (2 μM) induced changes in gene expression that resembled siRNA silencing of RBPJ rather than inhibition at the level of NOTCH itself. Consistent with the disruption of NOTCH signaling, RIN1 (0.6 μM) inhibited the proliferation of hematologic cancer cell lines and promoted skeletal muscle differentiation from C2C12 myoblasts. Thus, RIN1 inhibits RBPJ in its repressing and activating contexts and can be exploited for chemical biology and therapeutic applications.[1]

Solubility Information

Solubility	DMSO: 150 mg/mL (481.83 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 (32.12 mM), Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 10 mg/mL (32.12 mM), Solution. <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	3.2122 mL	16.0612 mL	32.1223 mL
5 mM	0.6424 mL	3.2122 mL	6.4245 mL
10 mM	0.3212 mL	1.6061 mL	3.2122 mL
50 mM	0.0642 mL	0.3212 mL	0.6424 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

Hurtado C, et al. Disruption of NOTCH signaling by a small molecule inhibitor of the transcription factor RBPJ. *Sci Rep.* 2019;9(1):10811.

Fujioka M, et al. Cloning of a novel splicing variant of RIN1 and its expression in gastric and colon cancer. *Oncol Res.* 2009;17(11-12):593-599.

Milstein M, et al. RIN1 is a breast tumor suppressor gene. *Cancer Res.* 2007;67(24):11510-11516.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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