

MKC9989

Chemical Properties

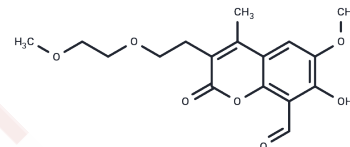
CAS No. : 1338934-20-5

Formula: C17H20O7

Molecular Weight: 336.34

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	MKC9989 is an inhibitor of Hydroxy aryl aldehydes (HAA). MKC9989 also inhibits IRE1 α with an IC50 of 0.23 to 44 μ M.
Targets(IC50)	IRE1
In vitro	MKC9989, significantly stabilizes the RIDD target CD59 mRNA when co-administered with thapsigargin relative to thapsigargin treatment alone and modestly increases levels of CD59 mRNA in non-stressed cells, the latter likely reflects the inhibition of baseline RIDD activity. In contrast to effects on XBP1 splicing, MKC9989 moderately stabilizes CD59 levels when administered 2 hour post treatment with thapsigargin.[1].

Solubility Information

Solubility	DMSO: 49 mg/mL (145.69 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 (5.95 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	2.9732 mL	14.8659 mL	29.7318 mL
5 mM	0.5946 mL	2.9732 mL	5.9464 mL
10 mM	0.2973 mL	1.4866 mL	2.9732 mL
50 mM	0.0595 mL	0.2973 mL	0.5946 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

Sanches M, et al. Structure and mechanism of action of the hydroxy-aryl-aldehyde class of IRE1 endoribonuclease inhibitors. Nat Commun. 2014 Aug 28;5:4202.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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