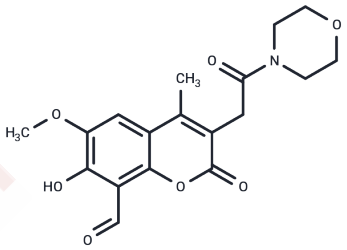
Data Sheet (Cat.No.T15594)

TargetMol

MKC8866

Chemical Properties



CAS No. :	1338934-59-0
Formula:	C18H19NO7
Molecular Weight:	361.35
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	MKC8866 is a selective IRE1 RNase inhibitor (IC50: 0.29 μM in human vitro). MKC8866 inhibits IRE1 RNase in breast cancer cells leading to the decreased production of pro-tumorigenic factors and it can inhibit prostate cancer (PCa) tumor growth.
Targets(IC50)	IRE1
In vitro	MKC8866 strongly suppresses DTT-induced X-box-binding protein 1-spliced (XBP1s) expression (EC50: 0.52?μM) and unstressed RPMI 8226 cells (IC50: 0.14?μM). MKC8866 (0.2-10 μM; 3 days) inhibits the viability of all four cell lines in a dose-dependent manner under normal conditions, with the most robust effect in LNCaP cells, and MKC8866 (20 μM; 72?hours) is sufficient to completely block NSC 125973-induced expression of XBP1s [1]. MKC8866 (20?μM; 6 days) reduces the proliferation of all breast cancer cell lines and MKC8866 (20 μM; 48 hours) decreases the number of cells entering the S phase [2].
In vivo	MKC8866 (oral; 300 mg/kg; for 28 days) reduces tumor regrowth following NSC 125973 withdrawal [1].

Solubility Information

Solubility	DMSO: 4.8 mg/mL (13.28 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.7674 mL	13.837 mL	27.674 mL
5 mM	0.5535 mL	2.7674 mL	5.5348 mL
10 mM	0.2767 mL	1.3837 mL	2.7674 mL
50 mM	0.0553 mL	0.2767 mL	0.5535 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

Sheng X, et al. IRE1α-XBP1s pathway promotes prostate cancer by activating c-MYC signaling. Nat Commun. 2019 Jan 24;10(1):323.

Logue SE, et al. Inhibition of IRE1 RNase activity modulates the tumor cell secretome and enhances response to chemotherapy. Nat Commun. 2018 Aug 15;9(1):3267.