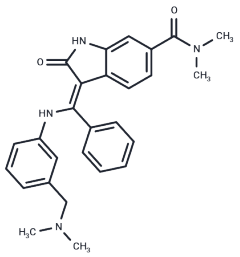
Data Sheet (Cat.No.T21295)

BIX02189

Chemical Properties



CAS No. : 1265916-41-3

Formula: C27H28N4O2

Molecular Weight: 440.54

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	BIX02189 is a potent and selective inhibitor of MEK5 and ERK5 (IC50: 1.5 nM and 59 nM).
Targets(IC50)	ERK,MEK
In vitro	BIX02189, which inhibited catalytic function of purified, MEK5 enzyme.?The MEK5 inhibitors blocked phosphorylation of ERK5, without affecting phosphorylation of ERK1/2 in sorbitol-stimulated HeLa cells.?The compounds also inhibited transcriptional activation of MEF2C, a downstream substrate of the MEK5/ERK5 signaling cascade, in a cellular trans-reporter assay system[1].

Solubility Information

Solubility	DMSO: 49.4 mg/mL (112.14 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: 2 mg/mL (4.54 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2699 mL	11.3497 mL	22.6994 mL
5 mM	0.454 mL	2.2699 mL	4.5399 mL
10 mM	0.227 mL	1.135 mL	2.2699 mL
50 mM	0.0454 mL	0.227 mL	0.454 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

Tatake RJ, et al. Identification of pharmacological inhibitors of the MEK5/ERK5 pathway. Biochem Biophys Res Commun. 2008 Dec 5;377(1):120-5.
Kim M, et al. Laminar flow activation of ERK5 protein in vascular endothelium leads to atheroprotective effect via NF-E2-related factor 2 (Nrf2) activation. J Biol Chem. 2012 Nov 23;287(48):40722-31.
Hwang AR, et al. Fluvastatin inhibits AGE-induced cell proliferation and migration via an ERK5-dependent Nrf2 pathway in vascular smooth muscle cells. PLoS One. 2017 May 22;12(5):e0178278.