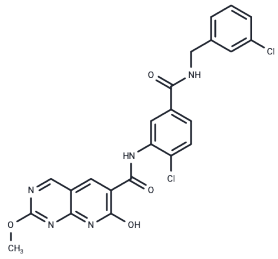
Data Sheet (Cat.No.T16078)

TargetMol

Mirk-IN-1

Chemical Properties



CAS No. : 1386979-55-0

Formula: C23H17Cl2N5O4

Molecular Weight: 498.32

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Mirk-IN-1 is an effective inhibitor of Dyrk1B(Mirk kianse) and Dyrk1A (IC50: 68±48 nM and 22±8 nM respectively).
Targets(IC50)	Others
In vitro	Dyrk inhibitor Mirk-IN-1 had an EC50 of 1.9 ±0.2 mmol/L on SW620 cells. Mirk-IN-1 inhibited the activities of DYRK1A, ABL, FLT3, and MARK1 by 88%, 64%, 56%, and 73%, respectively, at a much higher concentration of 10 mmol/L in a kinase assay [1]. Mirk-IN-1 was able to block tumour cells from undergoing reversible arrest in a quiescent G0 state and enable some cells to exit quiescence [2].

Solubility Information

Solubility	DMSO: 5 mg/mL (10.03 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.0067 mL	10.0337 mL	20.0674 mL
5 mM	0.4013 mL	2.0067 mL	4.0135 mL
10 mM	0.2007 mL	1.0034 mL	2.0067 mL
50 mM	0.0401 mL	0.2007 mL	0.4013 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.

Reference

Ewton DZ, et al. Inactivation of mirk/dyrk1b kinase targets quiescent pancreatic cancer cells. Mol Cancer Ther. 2011 Nov;10(11):2104-14.

Anderson K, et al. Pyrido[2,3-d]pyrimidines: discovery and preliminary SAR of a novel series of DYRK1B and DYRK1A inhibitors. Bioorg Med Chem Lett. 2013 Dec 15;23(24):6610-5.

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