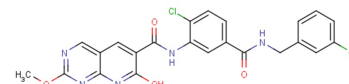


Mirk-IN-1

Chemical Properties

CAS No.:	1386979-55-0
Formula:	C ₂₃ H ₁₇ Cl ₂ N ₅ O ₄
Molecular Weight:	498.32
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



Biological Description

Description	Mirk-IN-1 is an effective inhibitor of Dyrk1B(Mirk kianse) and Dyrk1A (IC ₅₀ : 68±48 nM and 22±8 nM respectively).
Targets(IC ₅₀)	Others: None
In vitro	Dyrk inhibitor Mirk-IN-1 had an EC ₅₀ 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) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.007 mL	10.034 mL	20.067 mL
5 mM	0.401 mL	2.007 mL	4.013 mL
10 mM	0.201 mL	1.003 mL	2.007 mL
50 mM	0.04 mL	0.201 mL	0.401 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

Reference

1. Ewton DZ, et al. Inactivation of mirk/dyrk1b kinase targets quiescent pancreatic cancer cells. Mol Cancer Ther. 2011 Nov;10(11):2104-14.
2. 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.

Inhibitors · Natural Compounds · Compound Libraries

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