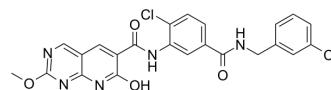


Mirk-IN-1

Cat. No.:	HY-12838		
CAS No.:	1386979-55-0		
Molecular Formula:	C ₂₃ H ₁₇ Cl ₂ N ₅ O ₄		
Molecular Weight:	498.32		
Target:	DYRK		
Pathway:	Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



SOLVENT & SOLUBILITY

In Vitro

DMSO : 2 mg/mL (4.01 mM; Need ultrasonic)
 H₂O : < 0.1 mg/mL (insoluble)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.0067 mL	10.0337 mL	20.0674 mL
	5 mM	---	---	---
	10 mM	---	---	---

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

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

CUSTOMER VALIDATION

- Biol Res. 2023 Mar 11;56(1):10.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [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.
-

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA