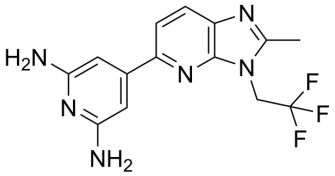
Dyrk1A-IN-4

Cat. No.:	HY-147066
CAS No.:	2091883-59-7
Molecular Formula:	$C_{14}H_{13}F_3N_6$
Molecular Weight:	322.29
Target:	DYRK
Pathway:	Protein Tyrosine Kinase/RTK
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (310.28 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1028 mL	15.5140 mL	31.0280 mL
	5 mM	0.6206 mL	3.1028 mL	6.2056 mL
	10 mM	0.3103 mL	1.5514 mL	3.1028 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: 2.5 mg/mL (7.76 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: 2.5 mg/mL (7.76 mM); Clear solution; Need ultrasonic
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: 2.5 mg/mL (7.76 mM); Clear solution; Need ultrasonic

BIOLOGICAL ACTIVITY

Description

Dyrk1A-IN-4 (compound 48) is a potent and orally active DYRK1A and DYRK2 inhibitor with IC_{50}s of 2 nM and 6 nM, respectively. Dyrk1A-IN-4 has anticancer effects[1].

IC_{50} & Target	DYRK1A	DYRK2
	2 nM (IC_{50})	6 nM (IC_{50})

REFERENCES

[1]. Csaba Weber, et al. Structure-Guided Discovery of Potent and Selective DYRK1A Inhibitors. J Med Chem. 2021 May 27;64(10):6745-6764.

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

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