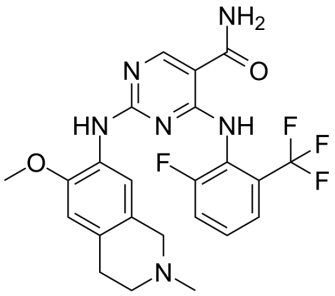
HPK1-IN-3

Cat. No.:	HY-138568
CAS No.:	2739844-34-7
Molecular Formula:	$C_{23}H_{22}F_4N_6O_2$
Molecular Weight:	490.45
Target:	MAP4K
Pathway:	MAPK/ERK Pathway
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 : 83.33 mg/mL (169.91 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.0389 mL	10.1947 mL	20.3894 mL
	5 mM	0.4078 mL	2.0389 mL	4.0779 mL
	10 mM	0.2039 mL	1.0195 mL	2.0389 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: ≥ 2.08 mg/mL (4.24 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

HPK1-IN-3 is a potent and selective ATP-competitive hematopoietic progenitor kinase 1 (HPK1; MAP4K1) inhibitor with an IC_{50} of 0.25 nM. HPK1-IN-3 has IL-2 cellular potency with an EC_{50} of 108 nM in human peripheral blood mononuclear cells (PBMCs)[1].

IC_{50} & Target

HPK1
0.25 nM (IC_{50})

In Vitro

HPK1-IN-3 (compound 27; 0.25-4 μM; 24-h) treatment shows a statistically significant elevation of proinflammatory cytokines IL-6 and TNF-α was observed in a concentration-dependent manner in human monocyte-derived dendritic cells[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Brandon A Vara, et al. Discovery of Diaminopyrimidine Carboxamide HPK1 Inhibitors as Preclinical Immunotherapy Tool Compounds. ACS Med Chem Lett. 2021 Mar 19;12(4):653-661.

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