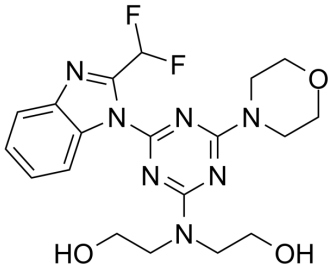
PI3K-IN-31

Cat. No.:	HY-143403
CAS No.:	1359956-12-9
Molecular Formula:	$C_{19}H_{23}F_2N_7O_3$
Molecular Weight:	435.43
Target:	PI3K
Pathway:	PI3K/Akt/mTOR

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 (229.66 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.2966 mL	11.4829 mL	22.9658 mL
5 mM	0.4593 mL	2.2966 mL	4.5932 mL
10 mM	0.2297 mL	1.1483 mL	2.2966 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 (5.74 mM); Suspended solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.74 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

PI3K-IN-31 (Compound 6b) is a potent PI3K inhibitor with IC_{50}s of 3.7 nM, 74 nM, 14.6 nM, and 9.9 nM for PI3Kα, PI3Kβ, PI3Kγ, and PI3Kδ, respectively. PI3K-IN-31 has anticancer effects[1].

IC_{50} & Target

PI3Kα	PI3Kδ	PI3Kγ	PI3Kβ
3.7 nM (IC_{50})	9.9 nM (IC_{50})	14.6 nM (IC_{50})	74 nM (IC_{50})

REFERENCES

[1]. Marcian E Van Dort, et al. Structural effects of morpholine replacement in ZSTK474 on Class I PI3K isoform inhibition: Development of novel MEK/PI3K bifunctional inhibitors. Eur J Med Chem. 2022 Feb 5;229:113996.

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