PI3K/mTOR Inhibitor-2

Cat. No.: HY-111508

CAS No.: 1848242-58-9

Molecular Formula: $C_{20}H_{13}ClF_2N_4O_4S$

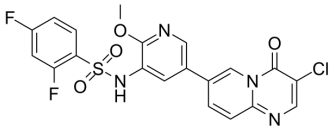
Molecular Weight: 478.86

Target: PI3K; mTOR

Pathway: PI3K/Akt/mTOR

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 : 8.33 mg/mL (17.40 mM; Need ultrasonic)

Preparing Stock Solutions	Concentration / Solvent / Mass	1 mg	5 mg	10 mg
	1 mM	2.0883 mL	10.4415 mL	20.8829 mL
	5 mM	0.4177 mL	2.0883 mL	4.1766 mL
	10 mM	0.2088 mL	1.0441 mL	2.0883 mL

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

BIOLOGICAL ACTIVITY

Description

PI3K/mTOR Inhibitor-2 is a potent dual pan-PI3K/mTOR inhibitor with IC_{50}s of 3.4/34/16/1 nM for PI3Kα/PI3Kβ/PI3Kδ/PI3Kγ and 4.7 nM for mTOR[1]. Antitumor activity[1].

IC_{50} & Target

PI3Kα 3.4 nM (IC_{50})	PI3Kβ 34 nM (IC_{50})	PI3Kδ 16 nM (IC_{50})	PI3Kγ 1 nM (IC_{50})
mTOR 4.7 nM (IC_{50})			

In Vitro

PI3K/mTOR Inhibitor-2 (Compound 31) inhibits p-AKT and p-p70s6k in MCF-7 cells with IC_{50}s of 11.6 and 89.2 nM, respectively[1].

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

CUSTOMER VALIDATION

- Sci Rep. 2022 Apr 12;12(1):6090.

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REFERENCES

[1]. Yu T, et al. Discovery of Pyridopyrimidinones as Potent and Orally Active Dual Inhibitors of PI3K/mTOR. ACS Med Chem Lett. 2018 Feb 27;9(3):256-261.

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