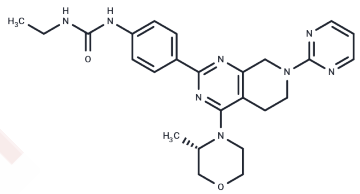
Data Sheet (Cat.No.T12123)

TargetMol

mTOR inhibitor-3

Chemical Properties



CAS No. : 1207358-59-5

Formula: C25H30N8O2

Molecular Weight: 474.56

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	mTOR inhibitor-3 is a selective mTOR inhibitor (Ki= 1.5 nM). mTOR inhibitor-3 inhibits mTORC1 and mTORC2 in cellular and in vivo experiments.
Targets(IC50)	mTOR
In vitro	mTOR inhibitor-3 is an mTOR inhibitsor(Ki of 1.5 nM), 500-fold selectivity over closely related PI3 kinases. mTOR inhibitor-3 inhibits NCI-PC3 and MCF7neo/Her2 cells proliferation with IC50s of 150 nM and 57 nM, respectively[2].
In vivo	mTOR inhibitor-3 achieves tumor stasis at the highest 200 mg/kg/day dose examined, which appears to also be approaching the limit of tolerability for this molecule. Plasma levels of mTOR inhibitor-3 6 h following oral administration in PC3 tumor-bearing mice along with the fold decreases of phosphorylated mTORC1 and -2 substrates relative to time-matched vehicle controls.mTOR inhibitor-3 has moderate terminal elimination half-life (t1/2=1.7 h for mouse(1 mg/kg, iv))[2].

Solubility Information

Solubility	DMSO: 40 mg/mL (84.29 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1072 mL	10.5361 mL	21.0722 mL
5 mM	0.4214 mL	2.1072 mL	4.2144 mL
10 mM	0.2107 mL	1.0536 mL	2.1072 mL
50 mM	0.0421 mL	0.2107 mL	0.4214 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Reference

Pei Z, et al. Discovery and Biological Profiling of Potent and Selective mTOR Inhibitor GDC-0349. ACS Med Chem Lett. 2012 Nov 29;4(1):103-7.

Koehler MF, et al. Potent, selective, and orally bioavailable inhibitors of the mammalian target of rapamycin kinase domain exhibiting single agent antiproliferative activity. J Med Chem. 2012 Dec 27;55(24):10958-71.

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