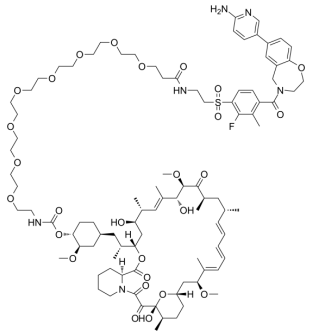
RMC-6272

Cat. No.:	HY-134904		
CAS No.:	2382769-46-0		
Molecular Formula:	$C_{95}H_{141}FN_6O_{27}S$		
Molecular Weight:	1850.22		
Target:	mTOR		
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 : 25 mg/mL (13.51 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	0.5405 mL	2.7024 mL	5.4048 mL
	5 mM	0.1081 mL	0.5405 mL	1.0810 mL
	10 mM	0.0540 mL	0.2702 mL	0.5405 mL

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

BIOLOGICAL ACTIVITY

Description

RMC-6272 (RM-006) is a bi-steric mTORC1-selective inhibitor. RMC-6272 exhibits potent and selective (> 10-fold) inhibition of mTORC1 over mTORC2. RMC-6272 shows improved inhibition of mTORC1 in comparison to Rapamycin, and induces more cell death in TSC2 null tumors[1].

In Vitro

RMC-6272 shows more effective growth inhibition in multiple TSC1 or TSC2 mutant tumor cell lines compared to Rapamycin. RMC-6272 causes a more profound growth inhibition in the TSC1 or TSC2 mutant cells than the wild type cells. RMC-6272 at ~1 nM shows near complete inhibition of p4E-BP1$^{T37/46}$, while inhibition of pS6$^{S240/244}$ levels is similar for Rapamycin and RM compounds[1].

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

In Vivo

RMC-6272 markedly reduces kidney tumor burden in Tsc2$^{+/-}$ A/J mice after four weeks of treatment. Tumor regrowth is assessed two months after treatment cessation, tumor burden is significantly reduced in the RMC-6272 group as compared to the Rapamycin and MLN0128 groups[1].

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

REFERENCES

[1]. Heng Du, et al. Bi-steric mTORC1-selective inhibitors demonstrate improved potency and efficacy in tumors with mTORC1 hyperactivation [abstract]. In: Proceedings of the American Association for Cancer Research Annual Meeting 2021; 2021 Apr 10-15 and May 1

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