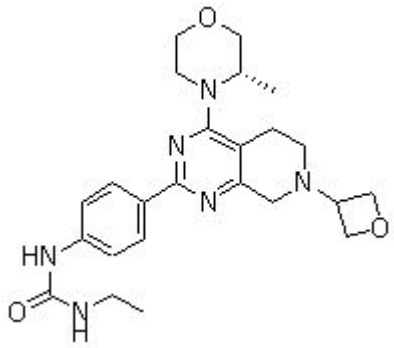
Product Introduction

GDC-0349

GDC-0349 is a potent and selective ATP-competitive inhibitor of **mTOR** with K_I of 3.8 nM, 790-fold inhibitory effect against PI3Kα and other 266 kinases. Phase 1.

Technical Data:

Molecular Weight (MW):	452.55	
Formula:	$C_{24}H_{32}N_6O_3$	
Solubility (25°C) * <1 mg/ml means slightly soluble or insoluble:	DMSO 91 mg/mL	
	Water <1 mg/mL	
	Ethanol 6 mg/mL	
Purity:	>98%	
Storage:	3 years -20℃Powder	
	6 months-80℃in DMSO	
CAS No.:	1207360-89-1	

Biological Activity

GDC-0349 has remarkable selectivity over 266 kinases, including all isoforms of PI3K. GDC-0349 inhibits downstream markers of mTOR, including phospho-4EBP1 and phospho-Akt(S473) in an in vivo PK/PD study in mouse, consistent with an inhibition of both mTORC1 and mTORC2 complexes. [1]

GDC-0349 demonstrates pathway modulation and dose-dependent efficacy in mouse xenograft cancer models. When dosed orally once daily in athymic mice in a MCF7-neo/Her2 tumor xenograft model (PI3K mutation), GDC-0349 inhibits tumor growth in a dose-dependent manner. It is also efficacious in other

xenograft models, including PC3 (PTEN null) and 786-O (VHL mutant). [1]

References

[1] Zhonghua Pei, et al. J Med Chem, 2013, 56(7), 3090-3101.