

GDC-0349

Chemical Properties

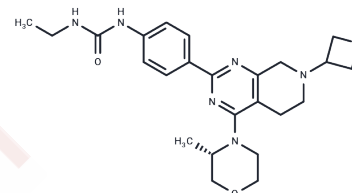
CAS No. : 1207360-89-1

Formula: C₂₄H₃₂N₆O₃

Molecular Weight: 452.55

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

Actual storage temperature shall be subject to the COA.



Biological Description

Description	GDC-0349 (RG-7603) is a potent and selective ATP-competitive inhibitor of mTOR with K _i of 3.8 nM, 790-fold inhibitory effect against PI3K α and other 266 kinases. Phase 1.
Targets(IC50)	Autophagy,mTOR,PI3K
In vitro	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]
In vivo	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]

Solubility Information

Solubility	Ethanol: 6 mg/mL (13.26 mM),Sonication is recommended. H ₂ O: < 1 mg/mL (insoluble or slightly soluble), DMSO: 84 mg/mL (185.61 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 3.3 mg/mL (7.29 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2097 mL	11.0485 mL	22.097 mL
5 mM	0.4419 mL	2.2097 mL	4.4194 mL
10 mM	0.221 mL	1.1049 mL	2.2097 mL
50 mM	0.0442 mL	0.221 mL	0.4419 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.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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

Wang Z, Feng J, Yu J, et al. FKBP12 mediates necroptosis by initiating RIPK1-RIPK3-MLKL signal transduction in response to TNF receptor 1 ligation. Journal of Cell Science. 2019, 132(10): jcs227777

Wang Z, Feng J, Yu J, et al. FKBP12 mediates necroptosis by initiating RIPK1-RIPK3-MLKL signal transduction in response to TNF receptor 1 ligation[J]. Journal of cell science. 2019 May 20;132(10). pii: jcs227777.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481