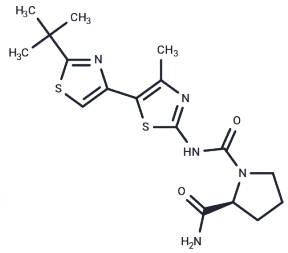
Data Sheet (Cat.No.T2418)

TargetMol

A66

Chemical Properties



CAS No. : 1166227-08-2

Formula: C17H23N5O2S2

Molecular Weight: 393.53

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	A66 is a specific and effective p110α inhibitor(IC50=32 nM).
Targets(IC50)	PI3K
In vitro	In male CD1 mice, A66 (10 mg/kg) increased glucose production during the pyruvate tolerance test. In SK-OV-3 tumor tissues, A66 (100 mg/kg) effectively reduced the phosphorylation of Akt/PKB and p70 S6 kinase, inhibiting tumor cell growth.
In vivo	A66 significantly inhibits the oncogenic forms of p110α, such as p110αE545K (IC50=30 nM) and p110αH1047R (IC50=43 nM), effectively reducing their activity.
Kinase Assay	IC50 values are evaluated using the PI3K (human) HTRF Assay. p85α/p110δ is obtained from Invitrogen. All other isoforms are produced in-house by co-expressing full-length human p85α with the indicated human full-length catalytic subunit containing a histidine tag at the N-terminus to allow purification. The PI3Ks are titrated and used at a concentration between their EC65-EC80 values. PI3K activity in immunoprecipitates is assayed using an antibody to the N-SH2 (N-Src homology 2) domain of p85α. Assays for other lipid kinases and protein kinases are performed by the National Centre for Protein Kinase Profiling and Invitrogen Drug Discovery Services[1].

Solubility Information

Solubility	H2O: < 1 mg/mL (insoluble or slightly soluble), Ethanol: 1 mg/mL (2.54 mM),Sonication is recommended. DMSO: 60 mg/mL (152.47 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (5.08 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.5411 mL	12.7055 mL	25.411 mL
5 mM	0.5082 mL	2.5411 mL	5.0822 mL
10 mM	0.2541 mL	1.2706 mL	2.5411 mL
50 mM	0.0508 mL	0.2541 mL	0.5082 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

Jamieson S, et al. Biochem J, 2011, 438(1), 53-62.
Sun M, et al. Proc Natl Acad Sci U S A, 2010, 107(35), 15547-15552.
Smith GC, et al. Biochem J, 2012, 442(1), 161-169.