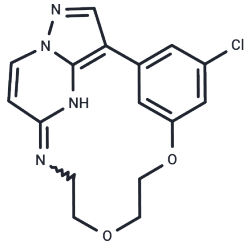
Data Sheet (Cat.No.T35694)

TargetMol

OD36

Chemical Properties



CAS No. : 1638644-62-8

Formula: C16H15ClN4O2

Molecular Weight: 330.77

Storage: Store at low temperature
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	OD36 is a selective and potent RIPK2 inhibitor with an IC50 of 5.3 nM.OD36 inhibits ALK2 signaling and osteogenic differentiation (KD: 37 nM), and binds efficiently to the ALK2 kinase ATP pocket.
Targets(IC50)	ALK,RIP kinase,TGF-beta/Smad
In vitro	OD36 shows activity against ALK1 (KD=90 nM).[2] OD36 potently antagonizes mutant ALK2 signaling and osteogenic differentiation.[2] OD36 (0.1-1 μM; 24 h; KS483 cells) efficiently inhibits BMP-6 (50 ng/mL)-induced p-Smad1/5.[2] OD36 (0.5 μM) completely prevents the activation of Smad1/5 and the gene targets ID-1 and ID-3 in response to activin A in preincubated fibrodysplasia ossificans progressiva (FOP) endothelial colony-forming cells (ECFCs).[2]
In vivo	OD36 (6.25 mg/kg; i.p.; once; C57BL/6 mice, muramyl dipeptide (MDP)-induced model of peritonitis) inhibited the recruitment of inflammatory cells to the peritoneum, specifically neutrophils, and to a lesser extent, lymphocytes. It decreased RIPK2-specific genes, as well as inflammatory cytokine and chemokine gene expression. OD36 alleviates inflammation in an acute peritonitis mice model.[3]

Solubility Information

Solubility	DMSO: 25 mg/mL (75.58 mM),Sonication and heating are recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.0232 mL	15.1162 mL	30.2325 mL
5 mM	0.6046 mL	3.0232 mL	6.0465 mL
10 mM	0.3023 mL	1.5116 mL	3.0232 mL
50 mM	0.0605 mL	0.3023 mL	0.6046 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

Justine T Tigno-Aranjuez, et al. In vivo inhibition of RIPK2 kinase alleviates inflammatory disease. J Biol Chem. 2014 Oct 24;289(43):29651-64.
Gonzalo Sánchez-Duffhues, et al. Development of Macrocycle Kinase Inhibitors for ALK2 Using Fibrodysplasia Ossificans Progressiva-Derived Endothelial Cells. JBMR Plus. 2019 Oct 7;3(11):e10230.
Tigno-Aranjuez JT, et al. In vivo inhibition of RIPK2 kinase alleviates inflammatory disease. J Biol Chem. 2014 Oct 24;289(43):29651-64.