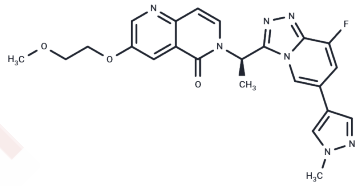
Data Sheet (Cat.No.T3209)

TargetMol

AMG-337

Chemical Properties



CAS No. : 1173699-31-4

Formula: C23H22FN7O3

Molecular Weight: 463.46

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	AMG-337 is an effective and highly specific ATP-competitive MET kinase inhibitor. In enzymatic assays, AMG-337(AMG337) inhibits MET kinase activity (IC50: < 5 nM).
Targets(IC50)	Apoptosis,Caspase,c-Met/HGFR
In vitro	AMG 337 potently inhibits the enzymatic activity of WT MET and a subset of MET mutants found in papillary renal cell carcinoma. The inability of AMG 337 to inhibit the Y1230 and D1228 mutants is likely the result of a disruption of the inactive confirmation of the activation loop in the MET kinase domain. AMG 337 also inhibits cell based HGF-induced MET phosphorylation in PC3 cells with IC50 of 5 nM. AMG 337 inhibits proliferation in MET-dependent cancer cell lines. AMG 337 inhibits signaling through the PI3K and MAPK pathways in MET-amplified gastric cancer cell lines resulting in profound effects on cell proliferation and survival[1].
In vivo	AMG 337 exhibits impressive potency with >90% inhibition of Gab-1 phosphorylation at a dose of 0.75 mg/kg (32 nmol/L free-drug concentration). AMG 337 is well tolerated at continuously administered doses that corresponded with complete MET inhibition for 24 hours, suggesting that AMG 337 has the preClinicalal attributes required to test the role of MET in human cancer[1].
Cell Research	To evaluate the effect of AMG 337 on viability, cells are seeded in 96-well plates at an optimal density to ensure proliferation throughout the duration of the experiments. Cells are treated for 72 hours with a 10-point, 3-fold, serial dilution of AMG 337 using a top concentration of 3 mmol/L. Viability is measured with the CellTiter-Glo Luminescent Cell Viability Assay.(Only for Reference)

Solubility Information

Solubility	Ethanol: 95 mg/mL (204.98 mM),Sonication is recommended. DMSO: 50 mg/mL (107.88 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 (4.32 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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1577 mL	10.7884 mL	21.5768 mL
5 mM	0.4315 mL	2.1577 mL	4.3154 mL
10 mM	0.2158 mL	1.0788 mL	2.1577 mL
50 mM	0.0432 mL	0.2158 mL	0.4315 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

Hughes PE, et al. Mol Cancer Ther. 2016, 15(7):1568-1579.
Huang Y, Guo Y, Zhou Y, et al.Tivantinib alleviates inflammatory diseases by directly targeting NLRP3.iScience. 2023