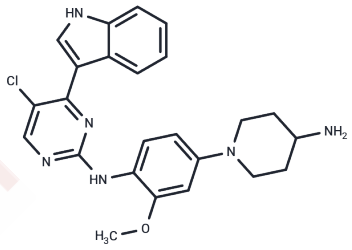
Data Sheet (Cat.No.T1967)

TargetMol

AZD-3463

Chemical Properties



CAS No. : 1356962-20-3

Formula: C24H25ClN6O

Molecular Weight: 448.95

Appearance: no data available

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

Biological Description

Description	AZD-3463 (ALK/IGF1R inhibitor), an orally bioavailable ALK inhibitor (Ki: 0.75 nM), can inhibit IGF1R with equivalent potency.
Targets(IC50)	Apoptosis,ALK,Autophagy,IGF-1R
In vitro	In vivo, AZD-3463 is equally effective against both the mutated L1196M and the wild-type ALK. When acting on transplanted tumors in vivo, AZD-3463 dose-dependently inhibits pALK, leading to the stagnation (H3122) or reduction (DEL, H2228) of tumor volume.
In vivo	In various in vitro models resistant to Crizotinib, AZD3463 exhibits antiproliferative efficacy against five out of six cell lines, with a potency four times greater than that of the parent H3122 cells. AZD3463 is effective across tumor cell lines with ALK fusion, including DEL (ALCL NPM-ALK), H2228 (NSCLC EML4-ALK), and H3122 (NSCLC EML4-ALK), by inhibiting ALK and reducing its autophosphorylation.
Kinase Assay	HDAC enzymatic assays: Tubastatin A is dissolved and diluted in assay buffer (50 mM HEPES, pH 7.4, 100 mM KCl, 0.001% Tween-20, 0.05% BSA, and 20 μM tris(2-carboxyethyl)phosphine) to 6-fold of the final concentration. HDAC enzymes are diluted to 1.5-fold of the final concentration in assay buffer and pre-incubated with Tubastatin A for 10 minutes before the addition of the substrate. The amount of FTS (HDAC1, HDAC2, HDAC3, and HDAC6) or MAZ-1675 (HDAC4, HDAC5, HDAC7, HDAC8, and HDAC9) used for each enzyme is equal to the Michaelis constant (Km), as determined by a titration curve. FTS or MAZ-1675 is diluted in assay buffer to 6-fold the final concentration with 0.3 μM sequencing grade trypsin. The substrate/trypsin mix is added to the enzyme/compound mix and the plate is shaken for 60 seconds and then placed into a SpectraMax M5 microtiter plate reader. The enzymatic reaction is monitored for release of 7-amino-4-methoxy-coumarin over 30 minutes, after deacetylation of the lysine side chain in the peptide substrate, and the linear rate of the reaction is calculated.

Solubility Information

Solubility	Ethanol: < 1 mg/mL (insoluble or slightly soluble), DMSO: 23 mg/mL (51.23 mM),Sonication is recommended. H2O: < 1 mg/mL (insoluble or slightly soluble),

(< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2274 mL	11.1371 mL	22.2742 mL
5 mM	0.4455 mL	2.2274 mL	4.4548 mL
10 mM	0.2227 mL	1.1137 mL	2.2274 mL
50 mM	0.0445 mL	0.2227 mL	0.4455 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.

Reference

104th AACR meeting, 2013, Abst 919.