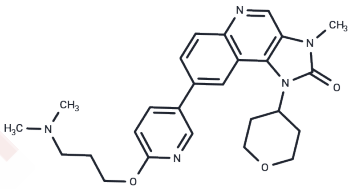
Data Sheet (Cat.No.T6770)

TargetMol

AZD0156

Chemical Properties



CAS No. : 1821428-35-6

Formula: C26H31N5O3

Molecular Weight: 461.56

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	AZD0156 , an effective and specific inhibitors of ATM kinase, is potential antineoplastic activities and chemo-/radio-sensitizing.
Targets(IC50)	Apoptosis,ATM/ATR
In vitro	AZD0156 effectively blocks the kinase activity of ATM and its associated signaling pathways, inhibiting the activation of DNA damage checkpoints. This disruption in DNA damage repair promotes apoptosis in tumor cells and results in cell death, particularly in those with an overexpression of ATM[1].
Cell Research	AZD0156 is dissolved in 100% DMSO. HT29 cells are seeded into 384 well assay plates at a density of 6000 cells/well in 40 μL EMEM medium containing 1% L glutamine and 10% FBS and allowed to adhere overnight. The following morning compound of Formula (I) in 100% DMSO is added to assay plates by acoustic dispensing. After lh incubation at 37° C and 5% C02,?40 nL of 3 mM 4NQO in 100% DMSO is added to all wells by acoustic dispensing, except minimum control wells which are left untreated with 4NQO to generate a null response control. Plates are returned to the incubator for a further lh. Then cells are fixed by adding 20 μL of 3.7% formaldehyde in PBS solution and incubating for 20 mins at r.t. Then 20 μL of 0.1% Triton XI 00 in PBS is added and incubated for 10 minutes at r.t., to permeabalise cells. Then the plates are washed once with 50 μL/well PBS, using a Biotek EL405 plate washer.

Solubility Information

Solubility	DMSO: 1 mg/mL (2.17 mM),Sonication is recommended. H2O: < 0.1 mg/mL (insoluble), (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1666 mL	10.8328 mL	21.6657 mL
5 mM	0.4333 mL	2.1666 mL	4.3331 mL
10 mM	0.2167 mL	1.0833 mL	2.1666 mL
50 mM	0.0433 mL	0.2167 mL	0.4333 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

WO2015170081A1 - Imidazo[4,5-c]quinolin-2-one compounds and their use in treating cancer - Google Patents. (2019). Retrieved from https://patents.google.com/patent/WO2015170081A1
Yao Y, Liu W, Li J, et al. MPI-based bioinformatic analysis and co-inhibitory therapy with mannose for oral squamous cell carcinoma. Medical Oncology. 2021, 38(9): 1-11.
Long X, Dai A, Huang T, et al.Simultaneous Delivery of Dual Inhibitors of DNA Damage Repair Sensitizes Pancreatic Cancer Response to Irreversible Electroporation.ACS nano.2023
Meng F, Qi T, Liu X, et al.Enhanced pharmacological activities of AKR1C3-activated prodrug AST-3424 in cancer cells with defective DNA repair.International Journal of Cancer.2024