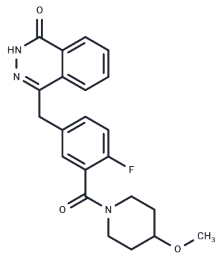
Data Sheet (Cat.No.T2484)

TargetMol

AZD-2461

Chemical Properties



CAS No. : 1174043-16-3

Formula: C22H22FN3O3

Molecular Weight: 395.43

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	AZD2461 is a novel PARP inhibitor.
Targets(IC50)	PARP
In vitro	AZD2461 had a lower affinity for Pgp than olaparib.
In vivo	AZD2461 had a lower affinity for Pgp than olaparib.
Kinase Assay	ELISA-Based ERBB Kinase Assay: The ERBB1, ERBB 2, and ERBB4 cytoplasmic fusion proteins are made by cloning the ERBB1 sequence (Met-668 to Ala-1211), ERBB2 (Ile-675 to Val-1256), and ERBB4 sequence (Gly-259 to Gly-690) into the baculoviral vector pFastBac using PCR. Proteins are expressed in baculovirusinfected Sf9 insect cells as GST fusion proteins. The proteins are purified by affinity chromatography using glutathione sepharose beads. Inhibition of ERBB tyrosine kinase activity is assessed using an ELISA-based receptor tyrosine kinase assay. Kinase reactions (50 mM HEPES, pH 7.4, 125 mM NaCl, 10 mM MgCl2, 100 μM sodium orthovanadate, 2 mM dithiothreitol, 20 μM ATP, PF299804 or vehicle control, and 1-5 nM GST-erbB per 50 μL of reaction mixture) are run in 96-well plates coated with 0.25 mg/mL poly-Glu-Tyr. The reactions are incubated for 6 minutes at room temperature while being shaken. Kinase reactions are stopped by removal of the reaction mixture, and then the wells are washed with wash buffer (0.1% Tween 20 in PBS). Phosphorylated tyrosine residues are detected by adding 0.2 μg/mL antiphosphotyrosine antibody (Oncogene Ab-4; 50 μL/well) coupled to horseradish peroxidase (HRP) diluted in PBS containing 3% BSA and 0.05% Tween 20 for 25 minutes while being shaken at room temperature. The antibody is removed, and plates are washed in wash buffer. HRP substrate (SureBlue3,3?,5,5?-tetramethyl benzidine or TMB) is added (50 μL per well) and incubated for 10-20 minutes while it is shaken at room temperature. The TMB reaction is stopped with the addition of 50 μL of stop solution (0.09 N H2SO4). The signal is quantified by measuring absorbance at 450 nm. IC50 values are determined for PF299804 using the median effect method.

Solubility Information

Solubility	DMSO: 45 mg/mL (113.8 mM),Sonication is recommended. Ethanol: 39.5 mg/mL (99.89 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 (5.06 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	2.5289 mL	12.6445 mL	25.2889 mL
5 mM	0.5058 mL	2.5289 mL	5.0578 mL
10 mM	0.2529 mL	1.2644 mL	2.5289 mL
50 mM	0.0506 mL	0.2529 mL	0.5058 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

Jaspers JE, et al. Cancer Discov, 2013, 3(1), 68-81.
Zhao J, Xu J, Wu M, et al.LncRNA H19 Regulates Breast Cancer DNA Damage Response and Sensitivity to PARP Inhibitors via Binding to ILF2.International Journal of Molecular Sciences.2023, 24(11): 9157.