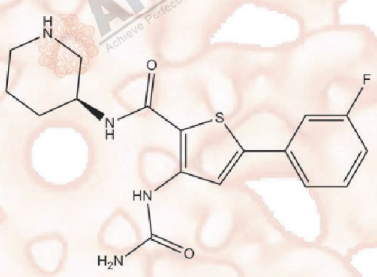
Product Data Sheet

AZD7762



Cat. No.:	A5919
CAS No.:	860352-01-8
Formula:	C17H19FN4O2S
M.Wt:	362.42
Synonyms:	
Target:	Cell Cycle/Checkpoint
Pathway:	Chk
Storage:	Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; insoluble in EtOH; ≥18.1 mg/mL in DMSO

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	2.7592 mL	13.7961 mL	27.5923 mL
5 mM	0.5518 mL	2.7592 mL	5.5185 mL
10 mM	0.2759 mL	1.3796 mL	2.7592 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary	Checkpoint kinase inhibitor,ATP competitive
IC_{50} & Target	5 nM (CHK1), <10 nM (CHK2)

In Vitro

Cell Viability Assay

Cell Line:	T47D and MCF7 cells
Preparation method:	The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.
Reacting conditions:	100 nM, 24 hours

	Applications:	A clearly enhanced radiosensitization of AZD7762 was observed in the p53 mutant T47D cells but not in the wild-type p53 MCF7 cells. In the p53 mutant T47D cells, the cytotoxicity produced by AZD7762 in combination with radiation was significantly greater than that caused by the radiation alone. In the wild-type p53 MCF7 cells, although there was a trend for AZD7762 to sensitize cells to radiation, this difference did not reach a statistical significance.
In Vivo	**Animal experiment**	
	Animal models:	Female athymic nude mice injected with HT-29 cells
	Dosage form:	Intraperitoneal injection, 25 mg/kg, given immediately after radiation treatment and 8 hours later
	Applications:	AZD7762 treatment alone had little effect on tumor growth, whereas fractionated radiation delayed tumor growth. The time for tumors to reach thrice the initially measured tumor volume relative to the control for AZD7762 alone, fractionated radiation, and AZD7762 plus fractionated radiation was 2.3 ($P < 0.53$), 7.4 ($P < 0.07$), and 18.7 ($P < 0.00014$) days, respectively. Relative to fractionated radiation alone, the combination of AZD7762 and fractionated radiation was also highly significant. Thus, the combination of AZD7762 and fractionated radiation showed a greater tumor growth delay than the sum of the individual treatments alone.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1] Ma Z, Yao G, Zhou B, et al. The Chk1 inhibitor AZD7762 sensitises p53 mutant breast cancer cells to radiation in vitro and in vivo. Molecular medicine reports, 2012, 6(4): 897-903.

[2] Mitchell J B, Choudhuri R, Fabre K, et al. In vitro and in vivo radiation sensitization of human tumor cells by a novel checkpoint kinase inhibitor, AZD7762. Clinical Cancer Research, 2010, 16(7): 2076-2084.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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