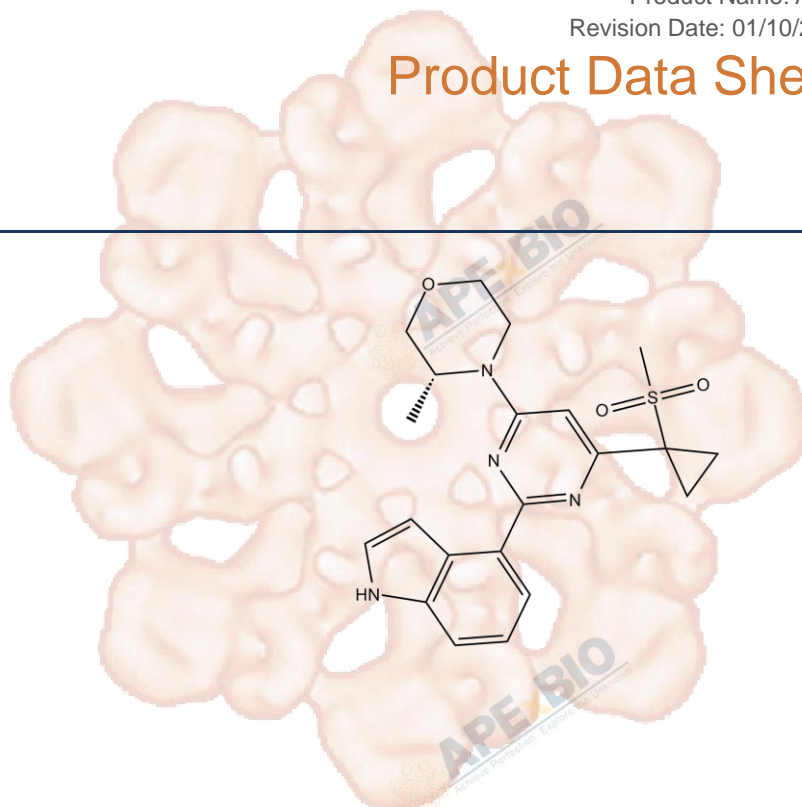


Product Data Sheet

AZ20

Cat. No.:	A3210
CAS No.:	1233339-22-4
Formula:	C ₂₁ H ₂₄ N ₄ O ₃ S
M.Wt:	412.51
Synonyms:	AZ-20;AZ 20
Target:	DNA Damage/DNA Repair
Pathway:	ATM/ATR
Storage:	Store at -20°C



Solvent & Solubility

≥20.65 mg/mL in DMSO; insoluble in H₂O; ≥4.19 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

Preparing Stock Solutions	Mass			
	Solvent Concentration	1mg	5mg	10mg
	1 mM	2.4242 mL	12.1209 mL	24.2418 mL
	5 mM	0.4848 mL	2.4242 mL	4.8484 mL
	10 mM	0.2424 mL	1.2121 mL	2.4242 mL

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

Biological Activity

Shortsummary

ATR inhibitor,potent and selective

IC₅₀ & Target

5 nM (ATR kinase)

In Vitro

Cell Viability Assay

Cell Line:	BT-474 cells and HT29 colorectal adenocarcinoma 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:	60 mins

	Applications:	AZ20 inhibited pAKT T308 in BT-474 cells, and inhibited pATM Ser-1981 and pDNA-PK Ser-2056 in HT29 cells. In LoVo colorectal adenocarcinoma cells, AZ20 induced growth inhibition with the GI50 value of 0.20 μ M.
In Vivo	Animal experiment	
	Animal models:	Female nude mice bearing LoVo tumors
	Dosage form:	5 mg/kg twice daily and 50 mg/kg once daily; p.o.
	Applications:	At the dose of 10 μ M, AZ20 was found to inhibit the cytochrome 3A4-mediated metabolism of Midazolam by 50%. In a low dose rat PK study, it demonstrated that AZ20 has respectable bioavailability.
	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

1. Shah GA, O'Shea CC. "Viral and Cellular Genomes Activate Distinct DNA Damage Responses." Cell. 2015 Aug 27;162(5):987-1002.PMID:26317467

See more customer validations on www.apexbt.com.

References

[1]. Foote KM, Blades K, Cronin A et al. Discovery of 4-{4-[(3R)-3-Methylmorpholin-4-yl]-6-[1-(methylsulfonyl)cyclopropyl]pyrimidin-2-yl}-1H-indole (AZ20): a potent and selective inhibitor of ATR protein kinase with monotherapy in vivo antitumor activity. J Med Chem. 2013 Mar 14;56(5):2125-38.

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. Short-term 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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