Product Data Sheet

Barasertib (AZD1152-HQPA)

Cat. No.: A4112

CAS No.: 722544-51-6

Formula: C26H30FN7O3

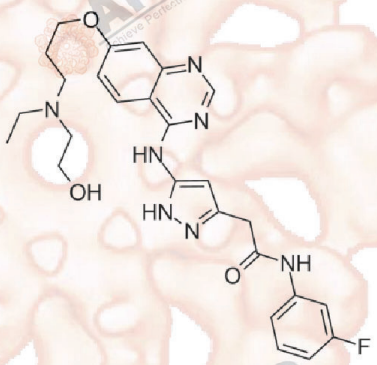
M.Wt: 507.56

Synonyms: AZD1152-HQPA,AZD-1152HQPA, AZD1152 HPQA,INH 34

Target: Chromatin/Epigenetics

Pathway: Aurora Kinase

Storage: Store at -20°C



Solvent & Solubility

In Vitro

⩾25.4 mg/mL in DMSO; insoluble in EtOH; insoluble in H2O

Preparing Stock Solutions

Concentration \ Mass / Solvent	1mg	5mg	10mg
1 mM	1.9702 mL	9.8511 mL	19.7021 mL
5 mM	0.3940 mL	1.9702 mL	3.9404 mL
10 mM	0.1970 mL	0.9851 mL	1.9702 mL

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

Biological Activity

Shortsummary	Aurora Kinase B inhibitor, Potent and selective
IC_{50} & Target	0.37 nM (Aurora B)

In Vitro

Cell Viability Assay

Cell Line:	HL-60 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:	25 nM, 72 hours
	Applications:	The cells exhibited increased DNA contents of 4N and 8N, indicative of polyploidy, within 24–48 h of treatment. After 48–72 h, barasertib-HQPA induced apoptotic cell death, as detected by an increased sub-G1 population compared for that of untreated cells. The induction of polyploidy was obvious at 24–48 h, and thereafter, the nuclei showed morphology typical of apoptosis, such as nuclear fragmentation and condensation. These observations were in accordance with the findings of the flow cytometric analysis.
In Vivo	**Animal experiment**	
	Animal models:	Female nude mice injected with SW620, Colo205 or HCT116 cells
	Dosage form:	Subcutaneous injection, 150 mg/kg/day, minipump infusion over 48 h
	Applications:	In SW620, HCT116 and Colo205 xenografts significant tumor growth inhibitions of 79% (P
	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.Christine M Field, James F Pelletier, et al. "Disassembly of actin and keratin networks by Aurora B kinase at the midplane of cleaving Xenopus laevis eggs." bioRxiv. 2019 January 06.

2.Shodai Tanaka, Kaori Senda-Murata, et al. "Live cell imaging of anaphase bridge formation and the subsequent cleavage furrow regression induced by the Aurora B kinase inhibitor AZD1152-HQPA." Bioimages.2017.10.05.

3.Hanley ML, Yoo TY, et al. "Chromosomalpassenger complex hydrodynamics suggests chaperoning of the inactive state bynucleoplasmin/nucleophosmin." Mol Biol Cell. 2017 Apr 12. pii: mbc.E16-12-0860.PMID:28404751

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References

[1] Yamauchi T, Uzui K, Shigemi H, et al. Aurora B inhibitor barasertib and cytarabine exert a greater-than-additive cytotoxicity in acute myeloid leukemia cells. Cancer science, 2013, 104(7): 926-933.

[2] Alferez D G, Goodlad R A, Odedra R, et al. Inhibition of Aurora-B kinase activity confers antitumor efficacy in preclinical mouse models of early and advanced gastrointestinal neoplasia. International journal of oncology, 2012, 41(4): 1475-1485.

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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