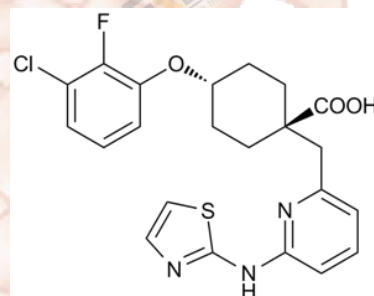


Product Data Sheet

MK-5108 (VX-689)

Cat. No.:	A4120
CAS No.:	1010085-13-8
Formula:	C22H21ClFN3O3S
M.Wt:	461.94
Synonyms:	
Target:	Chromatin/Epigenetics
Pathway:	Aurora Kinase
Storage:	Store at -20°C



Solvent & Solubility

≥23.1 mg/mL in DMSO; insoluble in EtOH; insoluble in H₂O

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	2.1648 mL	10.8239 mL	21.6478 mL
	5 mM	0.4330 mL	2.1648 mL	4.3296 mL
	10 mM	0.2165 mL	1.0824 mL	2.1648 mL

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

Biological Activity

Shortsummary

Aurora-A kinase inhibitor, highly selective

IC₅₀ & Target

0.064 nM (Aurora-A)

In Vitro

Cell Viability Assay

Cell Line:

Tumor cell types (HCT116, LS174T, HL60, MDA-MB-231, ZR-75-1, MCF-7, PC3, MIA PaCa2, A375 and HeLa).

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:	48 h; IC50(15 nM-113 nM)
	Applications:	VX-680 caused accumulation of cells with 4 N DNA content and potentially inhibited the proliferation of a wide variety of tumor cell types with half-maximal inhibitory concentration (IC50) values ranging from 15 to 113 nM. These data are consistent with the prediction that the Aurora kinases are crucial for cell-cycle progression, and with the finding that overexpression of kinase-inactive Aurora-B disrupts cell division.
In Vivo	Animal experiment	
	Animal models:	Female athymic NCr-nu mice
	Dosage form:	75 mg/kg; b.i.d.i.p.
	Applications:	VX-680 caused a marked reduction in tumor size in a human AML (HL-60) xenograft model. In nude mice treated with VX-680 at 75 mg/kg, twice a day intraperitoneally (b.i.d.i.p.) for 13 d, mean tumor volumes were reduced by 98% (P < 0.001) in comparison with the control group.
	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] Harrington E A, Bebbington D, Moore J, et al. VX-680, a potent and selective small-molecule inhibitor of the Aurora kinases, suppresses tumor growth in vivo[J]. Nature medicine, 2004, 10(3): 262-267.

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 APEX BIO 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.

APEx BIO Technology

www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.
Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com

