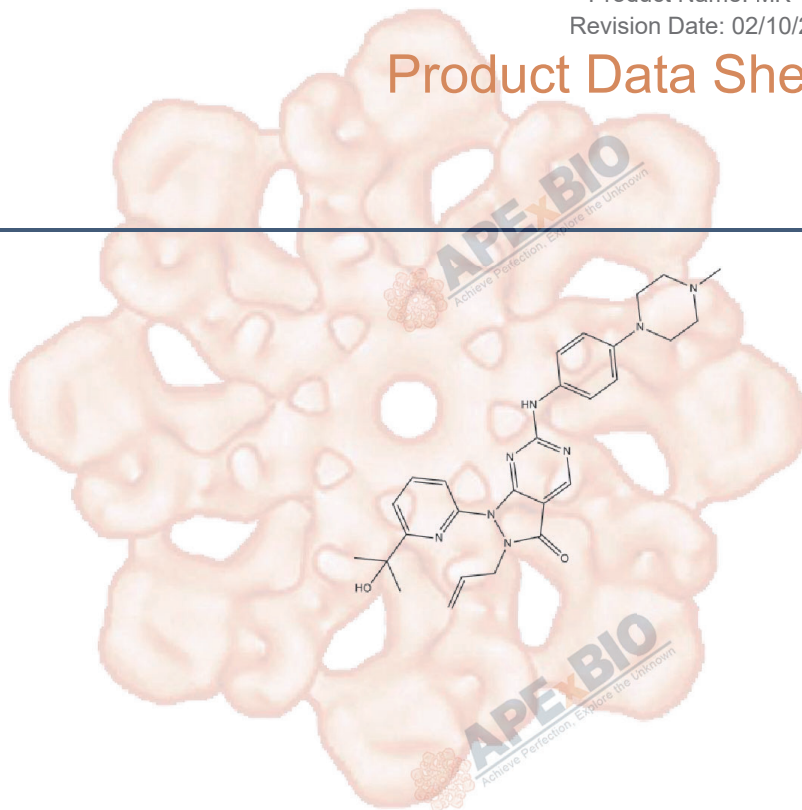


Product Data Sheet

MK-1775

Cat. No.:	A5755
CAS No.:	955365-80-7
Formula:	C ₂₇ H ₃₂ N ₈ O ₂
M.Wt:	500.6
Synonyms:	MK1775, MK 1775
Target:	Cell Cycle/Checkpoint
Pathway:	Wee1
Storage:	Store at -20°C



Solvent & Solubility

≥25.03 mg/mL in DMSO; insoluble in H₂O; insoluble in EtOH

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	1.9976 mL	9.9880 mL	19.9760 mL
		5 mM	0.3995 mL	1.9976 mL	3.9952 mL
		10 mM	0.1998 mL	0.9988 mL	1.9976 mL

Please refer to the solubility information to select the appropriate solvent

Biological Activity

Shortsummary	Wee1 kinase inhibitor, potent and ATP-competitive	
IC ₅₀ & Target	5.2 nM (Wee1)	
In Vitro	Cell Viability Assay	
	Cell Line:	WiDr and H1299 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:	30, 100 or 300 nM; 24 hrs

	Applications:	The cotreatment with 30 and 100 nM of MK-1775 reduced the IC50 values of Gemcitabine to 21.5 and 7.1 nM, respectively. Similar potentiation of Gemcitabine was also observed in another p53-deficient lung cancer cell line, H1299.
In Vivo	Animal experiment	
	Animal models:	Nude rats bearing WiDr, HeLa-luc or TOV21G-shp53 tumors
	Dosage form:	20 or 30 mg/kg; p.o.
	Applications:	In rats bearing WiDr tumors, MK-1775 treatment alone at 20 mg/kg displayed minimal antitumor effects with T/C of 69% at day 3. In rat bearing HeLa-luc and TOV21G-shp53 tumors, its antitumor efficacy is also moderate.
	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. Yuan ML, Li P, et al. "Inhibition of WEE1 Suppresses the Tumor Growth in Laryngeal Squamous Cell Carcinoma." *Front Pharmacol.* 2018 Sep 28;9:1041.PMID:30323762
2. Liu JC, Granieri L, et al. "Identification of CDC25 as a Common Therapeutic Target for Triple-Negative Breast Cancer." *Cell Rep.* 2018 Apr 3;23(1):112-126.PMID:29617654

See more customer validations on www.apexbt.com.

References

- [1]. Hirai H, Iwasawa Y, Okada M et al. Small-molecule inhibition of Wee1 kinase by MK-1775 selectively sensitizes p53-deficient tumor cells to DNA-damaging agents. *Mol Cancer Ther.* 2009 Nov;8(11):2992-3000.

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.

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

