

# PRODUCT INFORMATION

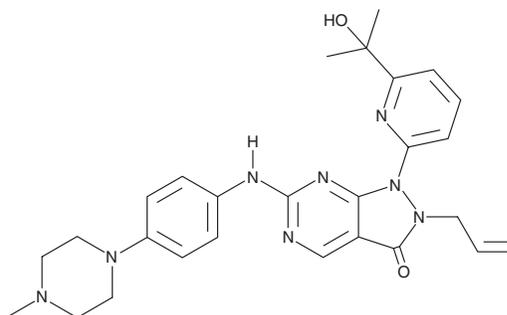


## MK-1775

Item No. 21266

**CAS Registry No.:** 955365-80-7  
**Formal Name:** 1,2-dihydro-1-[6-(1-hydroxy-1-methylethyl)-2-pyridinyl]-6-[4-(4-methyl-1-piperazinyl)phenyl]amino]-2-(2-propen-1-yl)-3H-pyrazolo[3,4-d]pyrimidin-3-one

**Synonym:** AZD 1775  
**MF:** C<sub>27</sub>H<sub>32</sub>N<sub>8</sub>O<sub>2</sub>  
**FW:** 500.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 229, 257, 292 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



### Laboratory Procedures

MK-1775 is supplied as a crystalline solid. A stock solution may be made by dissolving the MK-1775 in the solvent of choice. MK-1775 is soluble in the organic solvent DMSO, which should be purged with an inert gas, at a concentration of approximately 80 mg/ml.

### Description

MK-1775 is an inhibitor of the checkpoint kinase Wee1 (IC<sub>50</sub> = 5.2 nM).<sup>1</sup> It has been shown to inhibit the phosphorylation of Cdc2 at tryosine-15, which abrogates the G<sub>2</sub> DNA damage checkpoint.<sup>1</sup> In p53-deficient tumors that rely solely on the G<sub>2</sub> checkpoint upon DNA damage, MK-1775, in combination with DNA-damaging chemotherapeutic agents, is reported to induce apoptosis *in vitro* and potentiate the inhibition of tumor growth *in vivo*.<sup>1</sup>

### Reference

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.* **8(11)**, 2992-3000 (2009).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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