

PRODUCT INFORMATION

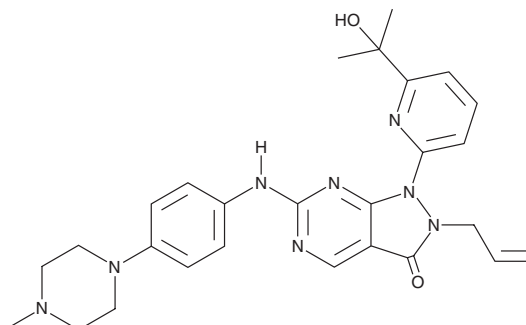


MK-1775

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: C₂₇H₃₂N₈O₂
FW: 500.6
Purity: ≥98%
UV/Vis.: λ_{max}: 229, 257, 292 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

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, which should be purged with an inert gas. MK-1775 is soluble in the organic solvent DMSO at a concentration of approximately 80 mg/ml.

Description

MK-1775 is an inhibitor of the checkpoint kinase Wee1 (IC₅₀ = 5.2 nM).¹ It has been shown to inhibit the phosphorylation of Cdc2 at tyrosine-15, which abrogates the G₂ DNA damage checkpoint.¹ In p53-deficient tumors that rely solely on the G₂ 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*.¹

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM