LKT Laboratories, Inc.

MK-1775

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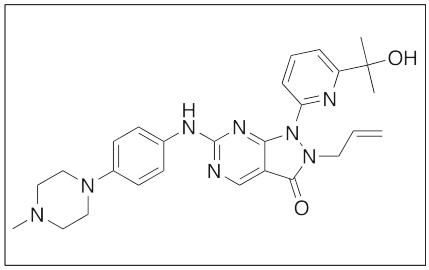
Product Information

Product ID M4102
CAS No. 955365-80-7
Chemical Name
Synonym
Formula $C_{27}H_{32}N_8O_2$
Formula Wt. 500.60
Melting Point
Purity ≥98%
Solubility DMSO 80 mg/mL (159.8 mM)
Ethanol 10 mg/mL (19.97 mM)
Water 0.0001 mg/mL (0.0
Store Temp -20°C
Ship Temp Ambient



Bulk quanitites available upon request

Product ID	Size
M4102	1 mg
M4102	5 mg
M4102	10 mg
M4102	25 mg

Description MK-1775 is an inhibitor of Wee1, a protein that regulates the G2 mitosis checkpoint in response to DNA damage. MK-1775 exhibits anticancer chemotherapeutic activity. In acute myelogenous leukemia (AML) cells, this compound decreases phosphorylation of CDK1/2 and induces double-stranded DNA breaks. In animal models of various cancers, MK-1775 increases survival times and decreases tumor size, particularly when co-administered with other treatments.

References

Qi W, Xie C, Li C, et al. CHK1 plays a critical role in the anti-leukemic activity of the wee1 inhibitor MK-1775 in acute myeloid leukemia cells. J Hematol Oncol. 2014 Aug 1;7:53. PMID: 25084614.

Van Linden AA, Baturin D, Ford JB, et al. Inhibition of Wee1 sensitizes cancer cells to antimetabolite chemotherapeutics in vitro and in vivo, independent of p53 functionality. Mol Cancer Ther. 2013 Dec;12(12):2675-84. PMID: 24121103.

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. PMID: 19887545.