

PRODUCT INFORMATION

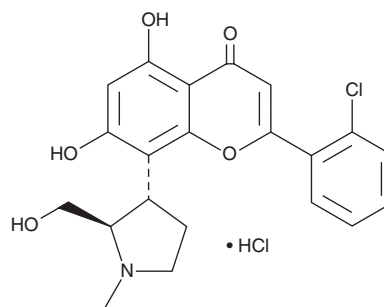


P276-00 (hydrochloride)

Item No. 39845

CAS Registry No.: 920113-03-7
Formal Name: 2-(2-chlorophenyl)-5,7-dihydroxy-8-
[(2R,3S)-2-(hydroxymethyl)-1-methyl-3-
pyrrolidinyl]-4H-1-benzopyran-4-one,
monohydrochloride

Synonym: Riviciclib
MF: C₂₁H₂₀ClNO₅ • HCl
FW: 438.3
Purity: ≥98%
Supplied as: A 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

P276-00 (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the P276-00 (hydrochloride) in the solvent of choice, which should be purged with an inert gas. P276-00 (hydrochloride) is soluble in acetonitrile and DMSO.

Description

P276-00 is an inhibitor of cyclin-dependent kinase 9 (Cdk9), Cdk4, and Cdk1 (IC₅₀s = 0.020, 0.063, and 0.079 μM, respectively).¹ It is selective for these CDKs over Cdk2/cyclin E, Cdk2/cyclin A, Cdk6, and Cdk7 (IC₅₀s = 2.54, 0.224, 0.396, and 2.87 μM, respectively), as well as a panel of eight other kinases. P276-00 (1 μM) induces apoptosis in HL-60 leukemia cells. It induces cell cycle arrest at the G₁ phase in synchronized H460 non-small cell lung cancer (NSCLC) cells when used at concentrations of 1.5 and 5 μM.² P276-00 (50 mg/kg once per day) reduces tumor volume in an H460 mouse xenograft model. It also inhibits reactivation of latent HIV-1 induced by the HIV re-activator prostratin (Item No. 10272), pan-HDAC inhibitor panobinostat (Item No. 13280), or bromodomain inhibitor JQ-1 in 24ST1NLESG cells (IC₅₀s = 0.1, 0.07, and 0.075 μM, respectively).³

References

1. Joshi, K.S., Rathos, M.J., Joshi, R.D., *et al.* *In vitro* antitumor properties of a novel cyclin-dependent kinase inhibitor, P276-00. *Mol. Cancer Ther.* **6**(3), 918-925 (2007).
2. Joshi, K.S., Rathos, M.J., Mahajan, P., *et al.* P276-00, a novel cyclin-dependent inhibitor induces G₁-G₂ arrest, shows antitumor activity on cisplatin-resistant cells and significant *in vivo* efficacy in tumor models. *Mol. Cancer Ther.* **6**(3), 926-934 (2007).
3. Vargas, B., Giacobbi, N.S., Sanyal, A., *et al.* Inhibitors of signaling pathways that block reversal of HIV-1 latency. *Antimicrob. Agents Chemother.* **63**(2), e01744-18 (2019).

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.

WARRANTY AND LIMITATION OF REMEDY

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