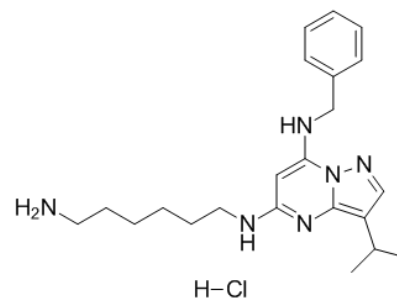


Product Name : BS-181 hydrochloride
Cat. No. : PC-43446
CAS No. : 1397219-81-6
Molecular Formula : C₂₂H₃₃ClN₆
Molecular Weight : 416.99
Target : Cyclin-dependent Kinase (CDK)
Solubility : 10 mM in DMSO



Biological Activity

BS-181 hydrochloride is a potent, selective **CDK7** inhibitor with IC₅₀ of 21 nM, 40-fold selectivity over CDK2/cycE and no significant activity against CDK1/cycB, CDK4/cycD1, CDK5/p35NCK, CDK6/cycD1, and CDK9/cycT (IC₅₀>1 μM). BS-181 promotes cell cycle arrest and inhibits cancer cell growth in a panel of cell lines representing a range of tumor types (IC₅₀=1.5 to 37 μM).

BS-181 inhibits the phosphorylation of CDK7 substrates, inhibits phosphorylation of the RNA polymerase II COOH-terminal domain (CTD) at P-Ser5 (IC₅₀=9 μM), inhibits RB phosphorylation at Ser795 and Ser821 (IC₅₀=15 μM).

BS-181 induces apoptosis in vitro, and shows antitumor effects in vivo.

References

- Ali S, et al. *Cancer Res.* 2009 Aug 1;69(15):6208-15.
Kelso TW, et al. *Mol Cell Biol.* 2014 Oct 1;34(19):3675-88.
Wang BY, et al. *Drug Des Devel Ther.* 2016 Mar 16;10:1181-9.
Li B, et al. *Cancer Res.* 2017 Jul 15;77(14):3834-3845.

Caution: Product has not been fully validated for medical applications. Lab Use Only!

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