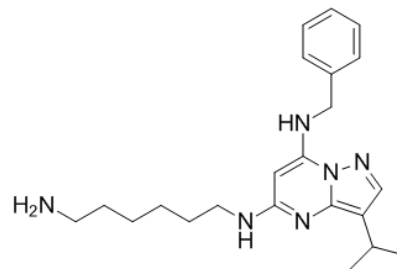


**Product Name** : BS-181  
**Cat. No.** : PC-43445  
**CAS No.** : 1092443-52-1  
**Molecular Formula** : C<sub>22</sub>H<sub>32</sub>N<sub>6</sub>  
**Molecular Weight** : 380.53  
**Target** : Cyclin-dependent Kinase (CDK)  
**Solubility** : 10 mM in DMSO



## Biological Activity

BS-181 is a potent, selective **CDK7** inhibitor with IC<sub>50</sub> 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 (IC<sub>50</sub>>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 (IC<sub>50</sub>=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 (IC<sub>50</sub>=9 μM), inhibits RB phosphorylation at Ser795 and Ser821 (IC<sub>50</sub>=15 μM).

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

## References

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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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