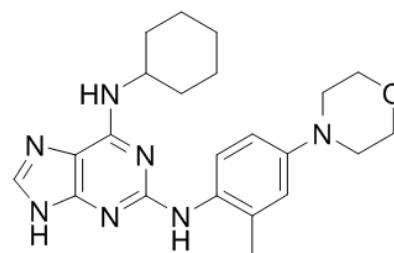


**Product Name** : MPI-0479605  
**Cat. No.** : PC-43142  
**CAS No.** : 1246529-32-7  
**Molecular Formula** : C<sub>22</sub>H<sub>29</sub>N<sub>7</sub>O  
**Molecular Weight** : 407.512  
**Target** : Monopolar Spindle 1 (Mps1/TTK)  
**Solubility** : DMSO: 11 mg/mL



## Biological Activity

MPI-0479605 is a potent, selective, ATP competitive inhibitor of **Mps1** with IC<sub>50</sub> of 1.8 nM.

MPI-0479605 triggers the time-dependent degradation of both cyclin B and securin, decreases BubR1 phosphorylation in nocodazole-arrested cells, blocks apparent autophosphorylation of Mps1 at threonine 676 in HEK293T cells.

MPI-0479605 impairs spindle assembly checkpoint (SAC), resulting in chromosome segregation defects and aneuploidy, induces p53-p21 pathway in an ATM- and ATR-dependent manner.

MPI-0479605 exhibits cytotoxicity across a broad range of tumor cell lines and antitumor activity in human tumor xenografts.

## References

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Vijay Kumar D, et al. *Bioorg Med Chem Lett.* 2012 Jul 1;22(13):4377-85.

Uitdehaag JCM, et al. *J Mol Biol.* 2017 Jul 7;429(14):2211-2230.

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

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