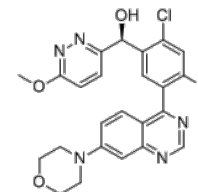


**Product Name** : M3814  
**Cat. No.** : PC-61389  
**CAS No.** : 1637542-33-6  
**Molecular Formula** : C<sub>24</sub>H<sub>21</sub>ClFN<sub>5</sub>O<sub>3</sub>  
**Molecular Weight** : 481.912  
**Target** : DNA-PK  
**Solubility** : 10 mM in DMSO



## Biological Activity

M3814 (Nedisertib, Pepsosertib, MSC2490484A) is a highly potent, selective, ATP-competitive and orally bioavailable inhibitor of **DNA-PK** with IC<sub>50</sub> of 0.6 nM (10 uM ATP).

M3814 exhibited a high degree of selectivity when tested using a broad panel of serine/threonine, tyrosine, and lipid kinases, only 8 of 284 recombinantly expressed protein/lipid kinases, including mutant kinases, were inhibited by at least 50% at 1 μmol/L M3814.

M3814 selectively inhibits DNA-PK activity and DSB repair in human cancer cell lines.

M3814 sensitizes cancer cells to IR through impaired colony outgrowth or proliferation/viability.

M3814 inhibits radiation-induced DNA-PK autophosphorylation and DSB repair in tumor xenograft models.

M3814 in combination with ionizing radiation (IR) has antitumor activity in mouse xenograft models.

## References

- Harnor SJ, et al. *ChemMedChem*. 2017 Jun 21;12(12):895-900.
- Zenke FT, et al. *Mol Cancer Ther*. 2020 May;19(5):1091-1101.

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

E-mail: tech@probechem.com