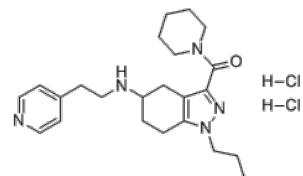


**Product Name** : NUCC-390 dihydrochloride  
**Cat. No.** : PC-20291  
**CAS No.** : 2749281-71-6  
**Molecular Formula** : C<sub>23</sub>H<sub>35</sub>Cl<sub>2</sub>N<sub>5</sub>O  
**Molecular Weight** : 468.47  
**Target** : Chemokine Receptor (CCR and CXCR)  
**Solubility** : 10 mM in DMSO



## Biological Activity

NUCC-390 dihydrochloride (NUCC390) is a small molecule agonist of **CXCR4**, recapitulates the activity of CXCL12 $\alpha$ .

NUCC-390 induces internalization of CXCR4 receptors.

NUCC-390 displays increased levels of phosphorylated ERK (pERK) in treated C8161 cells.

The effects of NUCC-390 could be completely inhibited by the selective CXCR4 antagonist AMD3100 (Cat#PC-42164).

NUCC-390 stimulates axonal growth and elongation via CXCR4 in cultured cerebellar granule neurons (CGNs), and in primary cultures of rat spinal cord motor neurons (SCMNs).

NUCC-390 promotes functional and anatomical recovery of the neuromuscular junction (NMJ) in mice.

NUCC-390 acts very similarly to the natural agonist ligand, the chemokine CXCL12 $\alpha$ .

## References

Negro S, et al. *Cells*. 2019 Sep 30;8(10):1183.

Mishra R, et al. *Sci Rep*. 2016 Jul 26;6:30155.

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

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