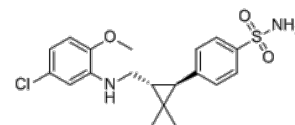


Product Name : BNC375
Cat. No. : PC-73023
CAS No. : 1557240-80-8
Molecular Formula : C₁₉H₂₃ClN₂O₃S
Molecular Weight : 394.914
Target : nAChR
Solubility : 10 mM in DMSO



Biological Activity

BNC375 (BNC-375) is a potent, selective, orally available type I **α7 nAChR positive allosteric modulator (PAM)** with EC₅₀ of 1.3 uM.

BNC375 significantly potentiated the acetylcholine signal without changing the rapid receptor desensitization.

BNC375 exhibited the MED of 0.03 mg/kg, and full reversal of the scopolamine-induced impairment was achieved at 1.0 mg/kg in mouse T-maze model.

BNC375 possessed an excellent safety profile: no change in the spatial and temporal response of the receptor to endogenous ligand ACh, no activity on other related channels, and no inhibition of major drug metabolizing enzymes such as CYP3A4, CYP2C9, CYP2D6, CYP1A2, and CYP2C19 (IC₅₀ >10 uM).

References

Harvey AJ, et al. *ACS Med Chem Lett.* 2019 Mar 25;10(5):754-760.

Wang X, et al. *J Pharmacol Exp Ther.* 2020 May;373(2):311-324.

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

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