
Product Data Sheet

Product Name: CMPI hydrochloride

Cat. No.: GC50306

Chemical Properties

Cas. No.

SMILES CC1=C(C2=CC(C3=C(C=CC=C3)Cl)=NO2)C=NN1C4CCNCC4.ClFormula $C_{18}H_{19}ClN_4O.HCl$ M.Wt 379.28Solubility Soluble in DMSO Storage Store at $-20^{\circ}C$

General tips For obtaining a higher solubility, please warm the tube at $37^{\circ}C$ and shake it in the ultrasonic bath for a while. Stock solution can be stored below $-20^{\circ}C$ for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure

Background

Potent positive allosteric modulator of $\alpha 4\beta 2$ nAChRs (EC₅₀ values are 20 and 18 nM for rat and human, respectively). Selective for $\alpha 4\beta 2$ over $\alpha 3\beta 2$, $\alpha 3\beta 4$ and $\alpha 7$. Inhibits ($\alpha 4$)₂($\beta 2$)₃, muscle-type and Torpedo nAChRs (IC₅₀ values are 0.5, 0.7 and 0.2 μM , respectively), but not ($\alpha 4$)₃($\beta 2$)₂ receptors. Exhibits ability to photoincorporate into aliphatic and nucleophilic amino acid side chains.

Hamouda (2016) Photolabeling a nicotinic acetylcholine receptor (nAChR) with an ($\alpha 4$)₃($\beta 2$)₂ nAChR-selective positive allosteric modulator. Mol.Pharmacol. 89 575 PMID:26976945 | Albrecht et al (2008) Discovery and optimization of substituted piperidines as potent, selective, CNS-penetrant $\alpha 4\beta 2$ nicotinic acetylcholine receptor potentiators. Bioorg.Med.Chem.Lett. 18 5209 PMID:18789861 | Wang et al (2017) Unraveling amino acid residues critical for allosteric potentiation of ($\alpha 4$)₃($\beta 2$)₂-type nicotinic acetylcholine receptor responses. J.Biol.Chem. 292 9988 PMID:28446611

Caution: Product has not been fully validated for medical applications. For research use only.

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