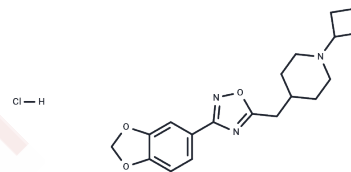


H3R-IN-1 Hydrochloride

Chemical Properties

CAS No. : 2319790-07-1
 Formula: C₁₉H₂₄ClN₃O₃
 Molecular Weight: 377.86
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
 Actual storage temperature shall be subject to the COA.



Biological Description

Description	H3R-IN-1 Hydrochloride is an inverse agonist of histamine receptor 3(H3R).
Targets(IC50)	Histamine Receptor
In vitro	Treatment with H3R-IN-1, which is a H3R inverse agonist, promotes oligodendrocyte precursor cell (OPC) differentiation in a dose-dependent manner, at EC 50 =25 nM. Western blot shows a significant increase in expression levels of two markers of mature oligodendrocytes, myelin-associated glycoprotein (MAG) and myeline basic protein (MBP) in differentiating oligodendrocytes after treatment with H3R-IN-1, which reveals that treatment with H3R-IN-1 drives more OPCs to differentiate. H3R-IN-1 increases the Forskolin-stimulated cAMP level in the primary oligodendrocyte precursor cells in a dose-dependent manner [1].
In vivo	The efficacy of H3R-IN-1 in promoting remyelination in vivo is assessed using the Cuprizone/Rapamycin-induced demyelination model. Mice receive a Cuprizone diet and intraperitoneal Rapamycin injections for 5 weeks, followed by 9 days of H3R-IN-1 treatment (30 mg/kg). Cuprizone and Rapamycin induced severe demyelination in the corpus callosum and cortex, and H3R-IN-1 administration significantly increased myelin-specific Black-gold II staining density in the lesions compared to the vehicle control group [1].

Solubility Information

Solubility	DMSO: 25 mg/mL (66.16 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6465 mL	13.2324 mL	26.4648 mL
5 mM	0.5293 mL	2.6465 mL	5.293 mL
10 mM	0.2646 mL	1.3232 mL	2.6465 mL
50 mM	0.0529 mL	0.2646 mL	0.5293 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

WANG, Rong, et al. THERAPEUTIC USES. WO2013107336A1.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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