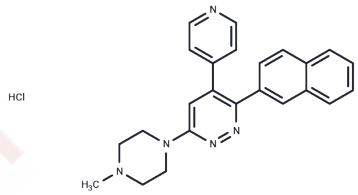
Data Sheet (Cat.No.T39343)

TargetMol

MW-150 hydrochloride

Chemical Properties



CAS No. :	1923773-01-6
Formula:	C24H24ClN5
Molecular Weight:	417.93
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	MW-150 hydrochloride (MW01-18-150SRM hydrochloride) is a potent and selective inhibitor of p38α MAPK with a Ki value of 101 nM. It exhibits excellent CNS penetration and oral bioavailability, and effectively suppresses the phosphorylation of MK2, a substrate of endogenous p38α MAPK, in activated glial cells.
Targets(IC50)	Others,Autophagy,p38 MAPK
In vitro	MW-150 hydrochloride (MW01-18-150SRM hydrochloride) efficiently inhibits p38αMAPK phosphorylation of MK2 in activated glia and blocks the increased production of IL-1β in a concentration-dependent manner. The IC50 values for inhibiting MK2 and IL-1β are 332 nM and 936 nM, respectively[1].
In vivo	Administering MW-150 hydrochloride (MW01-18-150SRM hydrochloride) at a dosage of 2.5 mg/kg orally each day for 3-4 months significantly enhances cognitive performance in APP/PS1 transgenic (Tg) mice, as evidenced in radial arm water maze (RAWM) and contextual fear conditioning tests. Similarly, a 14-day intraperitoneal (i.p.) treatment of the same dosage in APP NLh/NLh × PS P264L/P264L knock-in mice, which do not overexpress the amyloid precursor protein, results in RAWM performance comparable to that of wild-type (WT) mice. These findings suggest that MW-150 hydrochloride can ameliorate cognitive deficits in mouse models of amyloid-beta overexpression.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3927 mL	11.9637 mL	23.9275 mL
5 mM	0.4785 mL	2.3927 mL	4.7855 mL
10 mM	0.2393 mL	1.1964 mL	2.3927 mL
50 mM	0.0479 mL	0.2393 mL	0.4785 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

Roy SM, et al. Targeting human central nervous system protein kinases: An isoform selective p38αMAPK inhibitor that attenuates disease progression in Alzheimer's disease mouse models. ACS Chem Neurosci. 2015 Apr 15;6(4): 666-80.