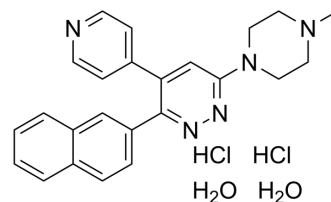


MW-150 dihydrochloride dihydrate

Cat. No.:	HY-120111B
CAS No.:	1661020-92-3
Molecular Formula:	C ₂₄ H ₂₉ Cl ₂ N ₅ O ₂
Molecular Weight:	490.43
Target:	p38 MAPK; Autophagy
Pathway:	MAPK/ERK Pathway; Autophagy
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro	DMSO : 20.83 mg/mL (42.47 mM; Need ultrasonic)				
		Solvent Concentration	Mass 1 mg	5 mg	10 mg
	Preparing Stock Solutions	1 mM	2.0390 mL	10.1951 mL	20.3903 mL
		5 mM	0.4078 mL	2.0390 mL	4.0781 mL
		10 mM	0.2039 mL	1.0195 mL	2.0390 mL
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (4.24 mM); Clear solution				
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (4.24 mM); Clear solution				

BIOLOGICAL ACTIVITY

Description	MW-150 dihydrochloride dihydrate (MW01-18-150SRM dihydrochloride dihydrate) is a selective, CNS penetrant, and orally active inhibitor of p38α MAPK with a K _i of 101 nM. MW-150 dihydrochloride dihydrate (MW01-18-150SRM dihydrochloride dihydrate) inhibits the ability of the endogenous p38α MAPK to phosphorylate an endogenous substrate MK2 in activated glia ^[1] .
IC ₅₀ & Target	p38α 101 nM (K _i)
In Vitro	MW-150 dihydrochloride dihydrate inhibits in a concentration-dependent manner the ability of the endogenous p38αMAPK to phosphorylate an endogenous substrate MK2 in activated glia ^[1] . MW-150 dihydrochloride dihydrate blocks in a concentration-dependent manner the increased IL-1β production by

activated glia. The IC₅₀ values are 332 nM and 936 nM for MK2 and IL-1 β , respectively^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

MW-150 dihydrochloride dihydrate (2.5 mg/kg; oral daily for 3–4 months) improves the APP/PS1 transgenic (Tg) mice performance in radial arm water maze (RAWM) and contextual fear conditioning tests^[1].
MW-150 dihydrochloride dihydrate (2.5 mg/kg; given i.p.; daily for 14 days) treatment in APP^{NLh/NLh} × PS^{P264L/P264L} knock-in mouse (with no overexpression of the amyloid precursor protein) exhibits RAWM behavior indistinguishable from WT mice^[1].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Roy SM, et al. Targeting human central nervous system protein kinases: An isoform selective p38 α MAPK inhibitor that attenuates disease progression in Alzheimer's disease mouse models. ACS Chem Neurosci. 2015 Apr 15;6(4):666-80.

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

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