

MW-150

## Chemical Properties

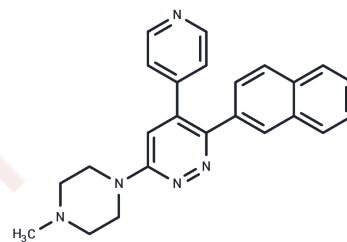
CAS No. : 1628502-91-9

Formula: C<sub>24</sub>H<sub>23</sub>N<sub>5</sub>

Molecular Weight: 381.47

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 (MW01-18-150SRM) is a unique, selective, CNS-penetrant, and orally active inhibitor of p38 $\alpha$ MAPK with a K <sub>i</sub> of 101 nM.
Targets(IC50)	Autophagy, p38 MAPK
In vitro	MW-150 treatment blocked in a concentration-dependent manner the increased IL-1 $\beta$ production by activated glia. The IC <sub>50</sub> values for these MW150 cellular activities are 332 nM (MK2) and 936 nM (IL-1 $\beta$ ), values which are consistent with the in vitro K <sub>i</sub> of 101 nM for p38 $\alpha$ MAPK.
Animal Research	MW-150 (2.5 mg/kg; given i.p.; daily for 14 days) treatment in APPNLh/NLh $\times$ PSP264L/P264L knock-in mouse (with no overexpression of the amyloid precursor protein) exhibits RAWM behavior indistinguishable from WT mice

## Solubility Information

Solubility	DMSO: 8.8 mg/mL (23.07 mM), Sonication is recommended. ( $<$ 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (2.62 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.6214 mL	13.1072 mL	26.2144 mL
5 mM	0.5243 mL	2.6214 mL	5.2429 mL
10 mM	0.2621 mL	1.3107 mL	2.6214 mL
50 mM	0.0524 mL	0.2621 mL	0.5243 mL

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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 p38 $\alpha$ MAPK inhibitor that attenuates disease progression in Alzheimer's disease mouse models. ACS Chem Neurosci. 2015 Apr 15;6(4): 666-80.

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