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## Product Data Sheet

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Product Name: MW-150 dihydrochloride dihydrate

Cat. No.: GC34918

### Chemical Properties

Cas. No. 1661020-92-3

SMILES CN1CCN(C2=NN=C(C3=CC=C4C=CC=CC4=C3)C(C5=CC=NC=C5)=C2)CC1.Cl.O.Cl.O

Formula  $C_{24}H_{29}Cl_2N_5O_2$

M.Wt

490.43

Solubility DMSO : 20.83 mg/mL (42.47 mM)

Storage

Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°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

MW-150 is an inhibitor of p38 $\alpha$  MAPK ( $K_i = 101$  nM).<sup>1</sup> It is 6-, 10-, and 14-fold selective for p38 $\alpha$  MAPK over the serine/threonine protein kinase NLK, p38 $\beta$  MAPK, and p38 $\delta$  MAPK, respectively, and is also selective over the enzymatically normal mutant p38 $\alpha$  MAPK<sup>T106M</sup>. It inhibits p38 $\alpha$  MAPK phosphorylation of the endogenous substrate MAPK-activated protein kinase 2 (MK2) in LPS-activated glia in a concentration-dependent manner and decreases the levels of IL-1 $\beta$  in the same cells. MW-150 (2.5 mg/kg per day, i.p.) reduces the number of errors made in the spatial reference memory version of the radial arm water maze in aged amyloid precursor protein/presenilin 1 (APP/PS1) knock-in mice as a model of Alzheimer's disease.

1. Roy, S.M., Grum-Tokars, V.L., Schavocky, J.P., 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. 6(4)666-680(2015)

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

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