

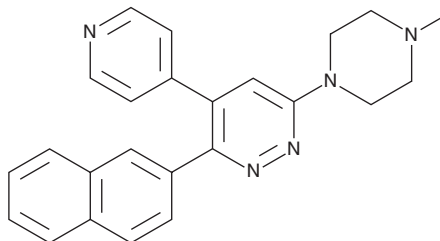
# PRODUCT INFORMATION



## MW-150

Item No. 33789

**CAS Registry No.:** 1628502-91-9  
**Formal Name:** 6-(4-methyl-1-piperazinyl)-3-(2-naphthalenyl)-4-(4-pyridinyl)-pyridazine  
**Synonym:** MW01-18-150SRM  
**MF:** C<sub>24</sub>H<sub>23</sub>N<sub>5</sub>  
**FW:** 381.5  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 217, 232, 274 nm  
**Supplied as:** A solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

MW-150 is supplied as a solid. A stock solution may be made by dissolving the MW-150 in the solvent of choice, which should be purged with an inert gas. MW-150 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of MW-150 in ethanol and DMSO is approximately 1 mg/ml and approximately 15 mg/ml in DMF.

MW-150 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, MW-150 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. MW-150 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

MW-150 is an inhibitor of p38α MAPK (K<sub>i</sub> = 101 nM).<sup>1</sup> It is 6-, 10-, and 14-fold selective for p38α MAPK over the serine/threonine protein kinase NLK, p38β MAPK, and p38δ MAPK, respectively, and is also selective over the enzymatically normal mutant p38α MAPK<sup>T106M</sup>. It inhibits p38α 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-1β 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.

### Reference

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

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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