

# PRODUCT INFORMATION



## Mps1-IN-2

Item No. 19401

**CAS Registry No.:** 1228817-38-6  
**Formal Name:** 9-cyclopentyl-2-[[2-ethoxy-4-(4-hydroxy-1-piperidinyl)phenyl]amino]-5,7,8,9-tetrahydro-5-methyl-6H-pyrimido[4,5-b][1,4]diazepin-6-one

**MF:** C<sub>26</sub>H<sub>36</sub>N<sub>6</sub>O<sub>3</sub>

**FW:** 480.6

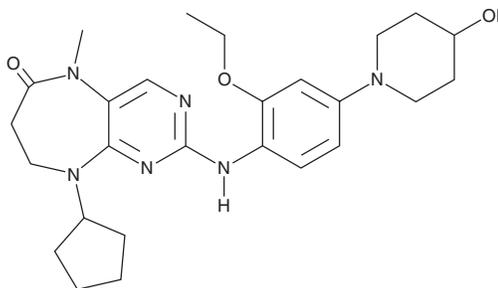
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 288 nm

**Supplied as:** A crystalline 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

Mps1-IN-2 is supplied as a crystalline solid. A stock solution may be made by dissolving the Mps1-IN-2 in the solvent of choice, which should be purged with an inert gas. Mps1-IN-2 is soluble in organic solvents such as DMSO (warmed) and dimethyl formamide (DMF). The solubility of Mps1-IN-2 in these solvents is approximately 1 mg/ml. Mps1-IN-2 is also slightly soluble in ethanol.

Mps1-IN-2 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Mps1-IN-2 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Mps1-IN-2 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

Mps1-IN-2 is an ATP-competitive inhibitor of the checkpoint kinase Mps1 (IC<sub>50</sub> = 145 nM).<sup>1</sup> It is 1,000-fold selective for Mps1 over a panel of 352 kinases at 10 μM, but does inhibit Plk1 (K<sub>d</sub> = 61 nM).

### Reference

1. Kwiatkowski, N., Jelluma, N., Filippakopoulos, P., *et al.* Small-molecule kinase inhibitors provide insight into Mps1 cell cycle function. *Nat. Chem. Biol.* **6**(5), 359-368 (2010).

#### 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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