

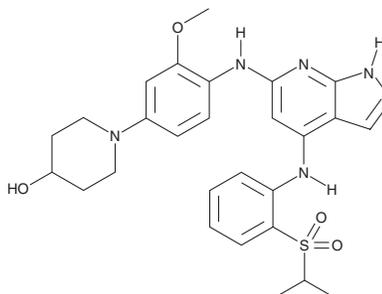
# PRODUCT INFORMATION



## Mps1-IN-1

Item No. 19175

**CAS Registry No.:** 1125593-20-5  
**Formal Name:** 1-[3-methoxy-4-[[4-[[2-[(1-methylethyl)sulfonyl]phenyl]amino]-1H-pyrrolo[2,3-b]pyridin-6-yl]amino]phenyl]-4-piperidinol  
**Synonyms:** Monopolar Spindle 1 Kinase Inhibitor 1, Mps1 Kinase Inhibitor 1  
**MF:** C<sub>28</sub>H<sub>33</sub>N<sub>5</sub>O<sub>4</sub>S  
**FW:** 535.7  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 295 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-1 is supplied as a crystalline solid. A stock solution may be made by dissolving the Mps1-IN-1 in the solvent of choice. Mps1-IN-1 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF) which should be purged with an inert gas. The solubility of Mps1-IN-1 in these solvents is approximately 30 and 50 mg/ml, respectively.

Mps1-IN-1 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Mps1-IN-1 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Mps1-IN-1 has a solubility of approximately 0.1 mg/ml in a 1:9 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-1 is a selective inhibitor of monopolar spindle 1 (Mps1) kinase (IC<sub>50</sub> = 367 nM), a dual-specificity kinase involved in spindle assembly checkpoint and the maintenance of chromosomal stability.<sup>1</sup> It exhibits greater than 1,000-fold selectivity against a panel of 352 kinases.<sup>1</sup> Mps1-IN-1 has been shown to disrupt the recruitment of Mad2 to kinetochores and to increase the frequency of multipolar mitosis in U2OS cells.<sup>1</sup>

### 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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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD

ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM