Mps1
Monopolar spindle 1

Monopolar spindle 1 (Mps1), also known as TTK, is a serine threonine kinase, which ensures proper biorientation of sister chromatids on the mitotic spindle by the activation of the spindle assembly checkpoint (SAC). Mps1 has been shown to function as the key kinase that activates the spindle assembly checkpoint (SAC) to secure proper distribution of chromosomes to daughter cells.

Mps1 is a dual specificity protein kinase that is essential for the bipolar attachment of chromosomes to the mitotic spindle and for maintaining the spindle assembly checkpoint until all chromosomes are properly attached. Mps1 is expressed at high levels during mitosis and is abundantly expressed in cancer cells. Disruption of Mps1 function induces aneuploidy and cell death.
# Mps1 Inhibitors

## AZ3146
**Cat. No.**: HY-14710

AZ3146 is a reasonably potent and selective Mps1 inhibitor with an IC\textsubscript{50} of 35 nM for Mps1\textsuperscript{1,2}.

- **Purity**: 99.92%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 10 mg, 50 mg, 100 mg

## BAY1217389
**Cat. No.**: HY-12859

BAY 1217389 is a potent, and selective inhibitor of the monopolar spindle 1 (MPS1) kinase with an IC\textsubscript{50} value less than 10 nM.

- **Purity**: 99.94%
- **Clinical Data**: Phase 1
- **Size**: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 25 mg, 50 mg

## BOS-172722
**Cat. No.**: HY-112162

BOS-172722 is an inhibitor of monopolar spindle 1 (MPS1) checkpoint with an IC\textsubscript{50} of 2 nM.

- **Purity**: 99.41%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 25 mg, 50 mg

## CCT251455
**Cat. No.**: HY-12603

CCT251455 is a potent and selective mitotic kinase monopolar spindle 1 (MPS1) inhibitor with an IC\textsubscript{50} of 3 nM.

- **Purity**: >98%
- **Clinical Data**: No Development Reported
- **Size**: 100 mg, 250 mg, 500 mg

## Empesertib (BAY 1161909)
**Cat. No.**: HY-12858

Empesertib (BAY 1161909) is a potent Mps1 inhibitor, with an IC\textsubscript{50} of < 1 nM.

- **Purity**: >98.0%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

## MPI-0479605
**Cat. No.**: HY-12660

MPI-0479605 is a potent and selective ATP-competitive inhibitor of Mps1, with an IC\textsubscript{50} of 1.8 nM.

- **Purity**: 99.85%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 2 mg, 5 mg, 10 mg, 50 mg

## Mps1-IN-1
**Cat. No.**: HY-13298

Mps1-IN-1 is a potent, selective and ATP-competitive Mps1 kinase inhibitor, with an IC\textsubscript{50} of 367 nM and a K\textsubscript{d} of 27 nM.

- **Purity**: 99.66%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

## Mps1-IN-2
**Cat. No.**: HY-13994

Mps1-IN-2 is a potent, selective and ATP-competitive dual Mps1/Plk1 inhibitor, with an IC\textsubscript{50} of 145 nM and a K\textsubscript{d} of 12 nM for Mps1 and a K\textsubscript{d} of 61 nM for Plk1.

- **Purity**: 98.06%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

## Mps1-IN-3
**Cat. No.**: HY-12401

Mps1-IN-3 is a potent and selective MPS1 kinase inhibitor, with an IC\textsubscript{50} of 50 nM.

- **Purity**: >98.0%
- **Clinical Data**: No Development Reported
- **Size**: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

## NMS-P715
**Cat. No.**: HY-12382

NMS-P715 is a selective, ATP-competitive inhibitor of MPS1, with an IC\textsubscript{50} of 182 nM.

- **Purity**: >99.0%
- **Clinical Data**: No Development Reported
- **Size**: 5 mg, 10 mg, 50 mg, 100 mg

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2 Tel: 609-228-6898 Fax: 609-228-5909 Email: sales@MedChemExpress.com
TC-Mps1-12  

TC-Mps1-12 is a potent and selective monopolar spindle 1 (Mps1) inhibitor, with an IC$_{50}$ of 6.4 nM.

![Chemical Structure](image)

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