Mps1-IN-3 hydrochloride

Cat. No.: HY-12401A

CAS No.: 2989453-29-2

Molecular Formula: $C_{26}H_{32}ClN_7O_4S$

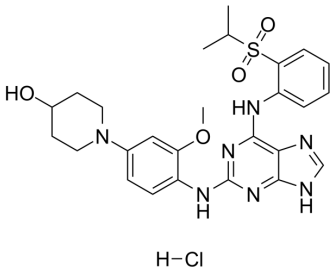
Molecular Weight: 574.09

Target: Mps1

Pathway: Cell Cycle/DNA Damage; Cytoskeleton

Storage: -20°C, sealed storage, away from moisture

* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 20 mg/mL (34.84 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.7419 mL	8.7094 mL	17.4189 mL
5 mM	0.3484 mL	1.7419 mL	3.4838 mL
10 mM	0.1742 mL	0.8709 mL	1.7419 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Mps1-IN-3 hydrochloride is a potent and selective Mps1 inhibitor with an IC_{50} value of 50 nM. Mps1-IN-3 hydrochloride can inhibit the proliferation of glioblastoma cells, and effectively sensitizes glioblastomas to Vincristine in orthotopic glioblastoma xenograft model[1].

IC_{50} & Target

IC_{50}: 50 nM (Mps1)[1]

In Vitro

Mps1-IN-3 hydrochloride (0.3-10 μM) inhibits the marker of mitotic cells cyclin B in a dose-dependent manner[1].

Mps1-IN-3 hydrochloride (2 μM) causes a dose-dependent escape from a checkpoint-mediated mitotic arrest[1].

Mps1-IN-3 hydrochloride (1-15 μM) inhibits the proliferation of U251 glioblastoma cells with an IC_{50} value of ~5 μM[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

In Vivo

Mps1-IN-3 hydrochloride (2 mg/kg; IV, twice a week, for 3 weeks) effectively sensitizes glioblastomas to Vincristine in orthotopic glioblastoma xenograft models[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

CUSTOMER VALIDATION

- Cell Metab. 2021 Jun 1;33(6):1111-1123.e4.

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REFERENCES

[1]. Tannous BA, et al. Effects of the selective MPS1 inhibitor MPS1-IN-3 on glioblastoma sensitivity to antimitotic drugs. J Natl Cancer Inst. 2013 Sep 4;105(17):1322-31.

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