# MSC-1186

**Cat. No.:** HY-148518

**CAS No.:** 2871698-23-4

**Molecular Formula:** $C_{19}H_{17}ClFN_7O_2S$

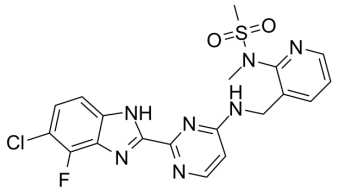
**Molecular Weight:** 461.9

**Target:** SRPK

**Pathway:** Cell Cycle/DNA Damage

**Storage:**

| | | |
|---|---|---|
| Powder | -20°C | 3 years |
| In solvent | -80°C | 6 months |
| | -20°C | 1 month |



## SOLVENT & SOLUBILITY

**In Vitro**

DMSO : 125 mg/mL (270.62 mM; Need ultrasonic)

| Preparing Stock Solutions | Mass / Solvent / Concentration | 1 mg | 5 mg | 10 mg |
|---|---|---|---|---|
| | 1 mM | 2.1650 mL | 10.8249 mL | 21.6497 mL |
| | 5 mM | 0.4330 mL | 2.1650 mL | 4.3299 mL |
| | 10 mM | 0.2165 mL | 1.0825 mL | 2.1650 mL |

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

**In Vivo**

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (4.50 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (4.50 mM); Clear solution

## BIOLOGICAL ACTIVITY

**Description**

MSC-1186 is a highly selective pan-SRPK inhibitor. MSC-1186 has activity for SRPK1, SRPK2 and SRPK3 with $IC_{50}$ values of 2.7 nM, 81 nM and 0.6 nM, respectively. MSC-1186 can be used for the research of cancer[1].

**$IC_{50}$ & Target**

IC50: 2.7 nM (SRPK1), 81 nM (SRPK2), 0.6 nM (SRPK3); EC50 in HEK293T cells: 98 nM (SRPK1), 40 nM (SRPK3)[1].

**In Vitro**

MSC-1186 has activity for SRPK1 and SRPK3 in HEK293T cells with $EC_{50}$ values of 98 nM and 40 nM, respectively[1].
MSC-1186 has activity for SRPK1, SRPK2 and SRPK3 with $IC_{50}$ values of 2.7 nM, 81 nM and 0.6 nM, respectively[1].
MSC-1186 has excellent kinome-wide selectivity[1].
MSC-1186 shows additive attenuation of SR-protein phosphorylation when is used in combination with CDC2-like kinase (CLK) inhibitors[1].

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

## REFERENCES

[1]. Martin Schröder, et al. MSC-1186, a Highly Selective Pan-SRPK Inhibitor Based on an Exceptionally Decorated Benzimidazole-Pyrimidine Core. J Med Chem. 2022 Dec 14.



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