# Inhibitors



## Cephalosporin C zinc salt

Cat. No.: HY-B1299A CAS No.: 59143-60-1 Molecular Formula:  $C_{16}H_{19}N_{3}O_{8}SZn$ 

Molecular Weight: 478.78

Bacterial; Antibiotic; Orthopoxvirus Target:

Pathway: Anti-infection

Storage: 4°C, sealed storage, away from moisture

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

**Product** Data Sheet

#### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 5 mg/mL (10.44 mM; ultrasonic and adjust pH to 3 with 1M HCl) H<sub>2</sub>O: < 0.1 mg/mL (ultrasonic; warming; heat to 60°C) (insoluble)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.0886 mL	10.4432 mL	20.8864 mL
	5 mM	0.4177 mL	2.0886 mL	4.1773 mL
	10 mM	0.2089 mL	1.0443 mL	2.0886 mL

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

### **BIOLOGICAL ACTIVITY**

Description	Cephalosporin C zinc salt is a potent inhibitor of SAMHD1 with an IC $_{50}$ of 1.1 $\mu$ M $^{[1]}$ . Cephalosporin C zinc salt also has moderate anti-orthopoxvirus activity $^{[2]}$ .
IC <sub>50</sub> & Target	β-lactam
In Vitro	Cephalosporin C zinc salt is a potent inhibitor of SAMHD1 with an IC <sub>50</sub> of $1.1\pm0.1~\mu\text{M}$ , 200-fold more potent than Na <sup>+</sup> salt form of Cephalosporin C (ICC <sub>50</sub> <sup>CC-Na</sup> = $213\pm30~\mu\text{M}$ ) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

#### **REFERENCES**

[1]. Donald F Smee, et al. A review of compounds exhibiting anti-orthopoxvirus activity in animal models. Antiviral Res. 2003 Jan;57(1-2):41-52.

[2]. Seamon KJ, et al. A High-Throughput Enzyme-Coupled Assay for SAMHD1 dNTPase. J Biomol Screen. 2015 Jul;20(6):801-9.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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Page 2 of 2 www.MedChemExpress.com