

## Zosurabalpin

## Chemical Properties

CAS No. : 2379336-76-0

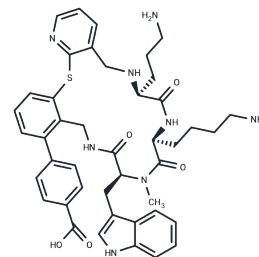
Formula: C43H50N8O5S

Molecular Weight: 790.97

Store at low temperature

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Zosurabalpin (Abx MCP) is a macrolide antibiotic effective against drug-resistant Gram-negative bacteria, such as carbapenem-resistant <i>Acinetobacter baumannii</i> (CRAB), by binding to and inhibiting the protein machinery complex LptB2FGC involved in the transport of outer membrane lipopolysaccharides.
Targets(IC50)	Antibacterial, Antibiotic
In vitro	<p><b>Method:</b> A. baumannii isolates were treated with Zosurabalpin at concentrations of 0.01, 0.1, 1, and 10 <math>\mu</math>M and incubated for 24 hours to assess its effect on lipopolysaccharide (LPS) extraction.</p> <p><b>Result:</b> Zosurabalpin reduced LPS extraction from A. baumannii in a concentration-dependent manner. [3]</p>

## Solubility Information

Solubility	DMSO: 3 mg/mL (3.79 mM), when pH is adjusted to 7 with 1M HCL. Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	1.2643 mL	6.3214 mL	12.6427 mL
5 mM	0.2529 mL	1.2643 mL	2.5285 mL
10 mM	0.1264 mL	0.6321 mL	1.2643 mL
50 mM	0.0253 mL	0.1264 mL	0.2529 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

- Weng Q, et al. Zosurabalpin: a novel tethered macrocyclic peptide antibiotic that kills carbapenem-resistant *Acinetobacter baumannii*. *MedComm* (2020). 2024 Aug 11;5(8):e696.
- Skudlarek JW, et al. Cerastecin Inhibition of the Lipooligosaccharide Transporter MsbA to Combat *Acinetobacter baumannii*: From Screening Impurity to In Vivo Efficacy. *J Med Chem*. 2024 Sep 12;67(17):15620-15675.
- Zampaloni C, et al. A novel antibiotic class targeting the lipopolysaccharide transporter. *Nature*. 2024 Jan;625(7995):566-571. doi: 10.1038/s41586-023-06873-0. Epub 2024 Jan 3. Erratum in: *Nature*. 2024 Jul;631(8022):E17.
- Hawser, S, et al. 2131. Activity of the Novel Antibiotic Zosurabalpin (RG6006) against Clinical *Acinetobacter* Isolates from China. *Open Forum Infect Dis* 2023, 10, ofad500.1754.

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