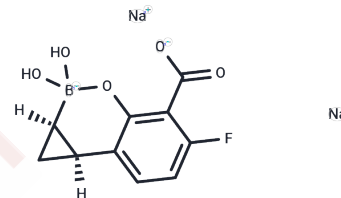


## QPX7728-OH disodium

## Chemical Properties

CAS No. :	2170848-99-2
Formula:	C <sub>10</sub> H <sub>8</sub> BFNa <sub>2</sub> O <sub>5</sub>
Molecular Weight:	283.96
Storage:	Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	QPX7728 disodium (Xeruborbactam disodium) is a cyclic boronate inhibitor of many serine and metal-β-lactamases with antibacterial activity, used in research on bacterial infections.
Targets(IC50)	Antibacterial
In vitro	The efficacy of QPX7728 disodium against <i>Pseudomonas aeruginosa</i> was not affected by the OprD inactivation of carbapenem porins. In strains with porin mutations, QPX7728 disodium (4 μg/ml) completely reversed KPC-mediated meropenem resistance. [1] The combination of QPX7728 disodium and cefbutin had similar efficacy against all enzyme subgroups (MIC90 of 1-2 μg/mL). [2]
In vivo	In a neutropenic mouse model of thigh infection, QPX7728 disodium (12.5, 25, or 50 mg/kg intraperitoneally administered every 2 hours for 24h) was administered in combination with cephalosporins. The bacterial counts of two carbapenem-resistant <i>Klebsiella pneumoniae</i> strains were reduced by about 2 log CFU. [[3]

## Solubility Information

Solubility	H <sub>2</sub> O: 60 mg/mL (211.3 mM),Sonication is recommended. DMSO: 155 mg/mL (545.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.5216 mL	17.6081 mL	35.2162 mL
5 mM	0.7043 mL	3.5216 mL	7.0432 mL
10 mM	0.3522 mL	1.7608 mL	3.5216 mL
50 mM	0.0704 mL	0.3522 mL	0.7043 mL

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

- Lomovskaya O, et al. Impact of Intrinsic Resistance Mechanisms on Potency of QPX7728, a New Ultrabroad-Spectrum Beta-Lactamase Inhibitor of Serine and Metallo-Beta-Lactamases in Enterobacteriaceae, *Pseudomonas aeruginosa*, and *Acinetobacter baumannii*. *Antimicrob Agents Chemother*. 2020 May 21;64(6):e00552-20.
- Lomovskaya O, et al. The Ultrabroad-Spectrum Beta-Lactamase Inhibitor QPX7728 Restores the Potency of Multiple Oral Beta-Lactam Antibiotics against Beta-Lactamase-Producing Strains of Resistant Enterobacterales. *Antimicrob Agents Chemother*. 2022 Feb 15;66(2):e0216821.
- Sabet M, et al. In Vivo Activity of QPX7728, an Ultrabroad-Spectrum Beta-Lactamase Inhibitor, in Combination with Beta-Lactams against Carbapenem-Resistant *Klebsiella pneumoniae*. *Antimicrob Agents Chemother*. 2020 Oct 20; 64(11):e01267-20.

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