

# PRODUCT INFORMATION

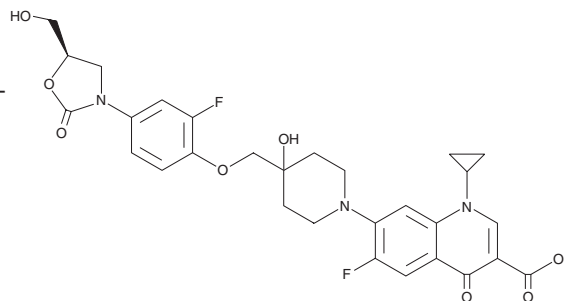


## Cadazolid

Item No. 23030

**CAS Registry No.:** 1025097-10-2  
**Formal Name:** 1-cyclopropyl-6-fluoro-7-[4-[[2-fluoro-4-[(5R)-5-(hydroxymethyl)-2-oxo-3-oxazolidinyl]phenoxy]methyl]-4-hydroxy-1-piperidiny]-1-4-dihydro-4-oxo-3-quinolinecarboxylic acid

**Synonym:** ACT-179811  
**MF:** C<sub>29</sub>H<sub>29</sub>F<sub>2</sub>N<sub>3</sub>O<sub>8</sub>  
**FW:** 585.6  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 240, 285 nm  
**Supplied as:** A crystalline solid  
**Storage:** -20°C  
**Stability:** ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Cadazolid is supplied as a crystalline solid. A stock solution may be made by dissolving the cadazolid in the solvent of choice, which should be purged with an inert gas. Cadazolid is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of cadazolid in these solvents is approximately 20 and 30 mg/ml, respectively.

Cadazolid is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, cadazolid should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Cadazolid has a solubility of approximately 0.16 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

Cadazolid is an oxazolidinone-type antibiotic that has activity against a panel of *C. difficile* strains, including those resistant to fluoroquinolones and linezolid (Item No. 15012; MICs = 0.125-0.5 µg/ml).<sup>1</sup> It inhibits toxin A and B formation in stationary-phase cultures and spore formation in late exponential cultures of the toxigenic *C. difficile* strain ATCC 9689. Cadazolid inhibits *C. difficile* protein synthesis (IC<sub>50</sub>s = 0.08-0.31 µg/ml) without affecting nucleic acid or cell wall synthesis (IC<sub>50</sub>s = 12-18.6 and >32 µg/ml, respectively).<sup>2</sup> *In vivo*, cadazolid (1 and 10 mg/kg) increases survival in a mouse model of *C. difficile*-associated diarrhea (CDAD). It also confers 100% survival in a hamster model of CDAD when administered at doses greater than 3 mg/kg.<sup>1</sup>

### References

1. Locher, H.H., Seller, P., Chen, X., *et al.* *In vitro* and *in vivo* antibacterial evaluation of cadazolid, a new antibiotic for treatment of *Clostridium difficile* infections. *Antimicrob. Agents Chemother.* **58(2)**, 892-900 (2014).
2. Locher, H.H., Caspers, P., Bruyère, T., *et al.* Investigations of the mode of action and resistance development of cadazolid, a new antibiotic for treatment of *Clostridium difficile* infections. *Antimicrob. Agents Chemother.* **58(2)**, 901-908 (2014).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

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#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897

[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM