

# PRODUCT INFORMATION

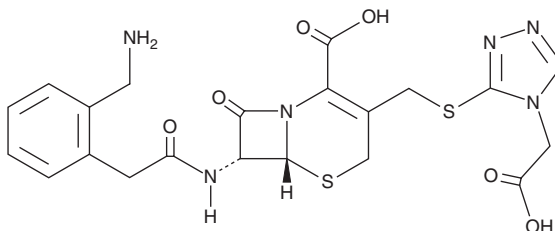


## Ceforanide

Item No. 36075

**CAS Registry No.:** 60925-61-3  
**Formal Name:** (6R,7R)-7-[[2-[2-(aminomethyl)phenyl]acetyl]amino]-3-[[[1-(carboxymethyl)-1H-tetrazol-5-yl]thio]methyl]-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid

**Synonym:** BL-S 786  
**MF:** C<sub>20</sub>H<sub>21</sub>N<sub>7</sub>O<sub>6</sub>S<sub>2</sub>  
**FW:** 519.6  
**Purity:** ≥95%  
**Supplied as:** A 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

Ceforanide is supplied as a solid. A stock solution may be made by dissolving the ceforanide in the solvent of choice, which should be purged with an inert gas. Ceforanide is soluble in the organic solvent DMSO. The solubility of ceforanide in DMSO is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of ceforanide can be prepared by directly dissolving the solid in aqueous buffers. The solubility of ceforanide in PBS (pH 7.2) is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ceforanide is a cephalosporin antibiotic.<sup>1</sup> It is active against the Gram-positive bacteria *S. pyogenes*, *S. pneumoniae*, *V. streptococci*, *S. aureus*, and *S. epidermidis* (MICs = 0.5, 0.2-0.5, 2, 8, and 6.2 µg/ml, respectively), as well as the Gram-negative bacteria *E. coli*, *P. mirabilis*, and *K. pneumoniae* (MIC<sub>50</sub>s = 1.6, 0.8, and 1.6 µg/ml, respectively). *In vivo*, ceforanide (30 mg/kg) reduces the number of colony forming units (CFUs) in vegetations and increases survival in a rabbit model of *S. aureus*-induced endocarditis.<sup>2</sup> Formulations containing ceforanide have been used in the treatment of bacterial infections.

### References

1. Barriere, S.L. and Mills, J. Ceforanide: Antibacterial activity, pharmacology, and clinical efficacy. *Pharmacotherapy* **2(6)**, 322-327 (1982).
2. Carrizosa, J., Kobasa, W.D., and Kaye, D. Comparison of ceforanide, cefazolin, methicillin, and nafcillin in Staphylococcus aureus endocarditis therapy in rabbits. *Antimicrob Agents Chemother.* **18(4)**, 562-565 (1980).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 08/08/2023

#### 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