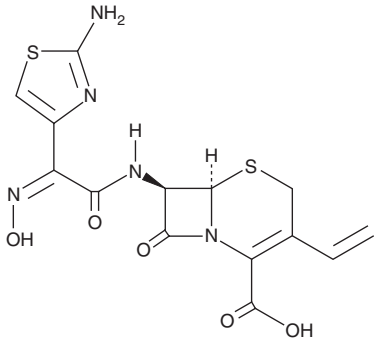
PRODUCT INFORMATION

Cefdinir

Item No. 21521

CAS Registry No.:	91832-40-5
Formal Name:	(6R,7R)-7-[[(2Z)-2-(2-amino-4-thiazolyl)-2-(hydroxyimino)acetyl]amino]-3-ethenyl-8-oxo-5-thia-1-azabicyclo[4.2.0]oct-2-ene-2-carboxylic acid
Synonyms:	BMY 28488, CI-983, FK-482
MF:	$C_{14}H_{13}N_5O_5S_2$
FW:	395.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 288 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

Cefdinir is supplied as a crystalline solid. A stock solution may be made by dissolving the cefdinir in the solvent of choice, which should be purged with an inert gas. Cefdinir is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of cefdinir in these solvents is approximately 2.5 and 0.3 mg/ml, respectively.

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 cefdinir can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of cefdinir in PBS (pH 7.2) is approximately 1.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Cefdinir is a cephalosporin antibiotic.[1] It is active against numerous Gram-positive and Gram-negative bacteria, including β-lactamase-producing *E. coli*, *K. oxytoca*, *K. pneumoniae*, and *P. aeruginosa* clinical isolates (MICs = 0.25-16 µg/ml). Cefdinir is protective against sepsis induced by strains of *S. aureus* or *H. influenzae* in mice with 50% protective dose (PD_{50}) values of 2.7-35 and 3.1-5.8 mg/kg, respectively.[2] Formulations containing cefdinir have been used in the treatment of Gram-positive and Gram-negative infections.

References

1. Briggs, B.M., Jones, R.N., Erwin, M.E., *et al.* In vitro activity evaluations of cefdinir (FK482, CI-983, and PD134393). A novel orally administered cephalosporin. *Diagn. Microbiol. Infect. Dis.* **14(5)**, 425-434 (1991).
2. Cohen, M.A., Wold, S.A., Meservey, M.A., *et al.* In vivo therapeutic efficacy of cefdinir (FK482), a new oral cephalosporin, against *Staphylococcus aureus* and *Haemophilus influenzae* in mouse infection models. *Diagn. Microbiol. Infect. Dis.* **18(1)**, 41-47 (1994).

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