

Product Data Sheet

Product Name: Cefditoren sodium

Cat. No.: GC64043

Chemical Properties

Cas. No. 104146-53-4

Formula C₁₉H₁₇N₆NaO₅S₃

M.Wt 528.56

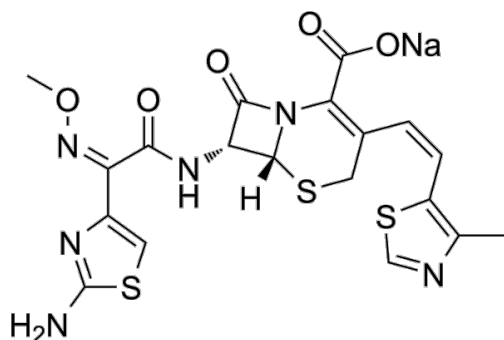
Solubility DMSO : 31.25 mg/mL (59.12 mM; ultrasonic and warming and heat to 60°C)

Storage 4°C, away from moisture

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure



Background

Cefditoren sodium (ME 1206) is a broad-spectrum, third-generation, oral cephalosporin antibacterial with enhanced stability against many common β lactamases. Cefditoren sodium has activity against Gram-negative organisms and Gram-positive organisms. Cefditoren sodium can be used in the research of infection diseases such as acute exacerbations of chronic bronchitis, community-acquired pneumonia (CAP), streptococcal pharyngitis/tonsillitis, or uncomplicated skin and skin structure infections[1][2].

Caution: Product has not been fully validated for medical applications. For research use only.

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Cefditoren (sodium) shows good activity against pneumoniae, *S. pyogenes*, *Staphylococcus aureus*, *H. influenzae* and *H. parainfluenzae*, *M. catarrhalis*[1]. Organism MIC50 (mg/L) MIC90 (mg/L) susceptible (%) Gram-positive organisms *Streptococcus pneumoniae*(untyped)a 0.015-0.25 0.12-1 PS ≤ 0.008 -0.03 0.015-0.25 99-100 PI 0.06-0.5 0.25-0.5 94-100 PR 0.25-1 0.5-2 7-100 *S. pyogenes* ≤ 0.008 -0.03 0.015-0.03 100 *Staphylococcus aureus* (MS) 0.12-0.5 0.5-1 50-100 Gram-negative organisms *Haemophilus* ≤ 0.008 - ≤ 0.03 0.015-0.13 *influenzae* (untyped)b β -Lactamase + ≤ 0.008 -0.03 0.015-0.06 100 β -Lactamase - ≤ 0.008 -0.03 0.015-0.06 100 *H. parainfluenzae*b ≤ 0.03 0.06 *Moraxella* 0.03-0.5 0.25-1 96 *catarrhalis* (untyped)b β -Lactamase + ≤ 0.03 -0.25 0.12-0.5 100 β -Lactamase - ≤ 0.008 -0.03 0.015-0.06 100 a Including PS, PI and PR strains.b Including both β -lactamase-positive and -negative strains.MIC50/90=mean minimum inhibitory concentrations required to inhibit the growth of 50% or 90% of bacterial strains; MS=susceptible to meticillin; PI=intermediate susceptibility to penicillin; PR=resistant to penicillin; PS=susceptible to penicillin.

Pharmacokinetics in mice[1]: Cefditoren (mg/kg) C0 (&#181g/ml) t1/2 (h) AUClast (&#181g× h/ml) Tlast (h) 6.25 53.0 0.9 30.4 6 12.5 168.4 1.1 64.1 8 25 232.5 0.9 101.3 8 50 290.6 1.1 124.4 8

[1]. Wellington K, et al. Cefditoren pivoxil: a review of its use in the treatment of bacterial infections. *Drugs*. 2004;64(22):2597-618.

[2]. Cafini F, et al. Enhanced in vivo activity of cefditoren in pre-immunized mice against penicillin-resistant *S. pneumoniae* (serotypes 6B, 19F and 23F) in a sepsis model. *PLoS One*. 2010 Aug 10;5(8):e12041.

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