Cephalothin

Cat. No.: HY-B1275A

CAS No.: 153-61-7

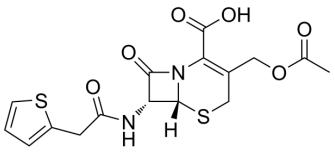
Molecular Formula: $C_{16}H_{16}N_2O_6S_2$

Molecular Weight: 396.44

Target: Bacterial; Antibiotic; Beta-lactamase

Pathway: Anti-infection

Storage: 4°C, protect from light, stored under nitrogen
* In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (252.24 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.5224 mL	12.6122 mL	25.2245 mL
	5 mM	0.5045 mL	2.5224 mL	5.0449 mL
	10 mM	0.2522 mL	1.2612 mL	2.5224 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (6.31 mM); Clear solution

BIOLOGICAL ACTIVITY

Description Cephalotin (Cephalotin) is a beta-lactam antibiotic, inhibits class C β-lactamase AmpC, with an K_i of 0.32 μM[1].

IC_{50} & Target β-lactam

REFERENCES

[1]. Morandi S, et al. Structure-based optimization of cephalothin-analogue boronic acids as beta-lactamase inhibitors. Bioorg Med Chem. 2008 Feb 1;16(3):1195-205. Epub 2007 Nov 7.

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

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