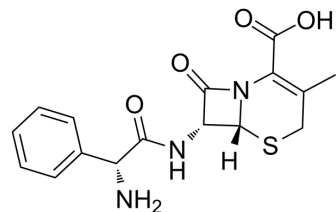


## Cephalexin

Cat. No.:	HY-B0200		
CAS No.:	15686-71-2		
Molecular Formula:	C <sub>16</sub> H <sub>17</sub> N <sub>3</sub> O <sub>4</sub> S		
Molecular Weight:	347.39		
Target:	Antibiotic; Bacterial		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### SOLVENT & SOLUBILITY

#### In Vitro

H<sub>2</sub>O : 10 mg/mL (28.79 mM; Need ultrasonic and warming)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	2.8786 mL	14.3930 mL	28.7861 mL
	5 mM	0.5757 mL	2.8786 mL	5.7572 mL
	10 mM	0.2879 mL	1.4393 mL	2.8786 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Cephalexin (Cefalexin; Cephacillin) is a potent, orally active and the first-generation cephalosporin antibiotic. Cephalexin kills gram-positive and some gram-negative bacteria by disrupting the growth of the bacterial cell wall. Cephalexin monohydrate is used for the research of pneumonia, strep throat, and bacterial endocarditis, et al<sup>[1]</sup>.

#### In Vitro

Cephalexin is not effective against infections caused by methicillin-resistant *Staphylococcus aureus* (MRSA), *Enterococcus*, or *Pseudomonas*. Cephalexin disrupts the synthesis of the peptidoglycan layer of bacterial cell walls which is responsible for cell wall structural integrity<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Chemosphere. 2021, 131417.

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- Chemosphere. 2019 Jun;225:378-387.
  - Infect Immun. 2018 May 22;86(6). pii: e00090-18.
  - Biomed Res Int. 2018 Jul 2;2018:3579832.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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[1]. Cefalexin

[2]. Hongbaek Cho, et al. Beta-lactam antibiotics induce a lethal malfunctioning of the bacterial cell wall synthesis machinery. Cell. . 2014 Dec 4;159(6):1300-11.

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

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