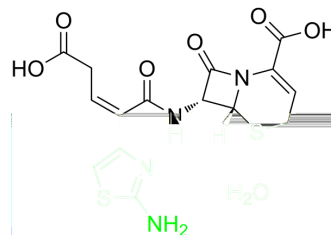


## Ceftibuten hydrate

<b>Cat. No.:</b>	HY-B0698B
<b>CAS No.:</b>	1346153-47-6
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>16</sub> N <sub>4</sub> O <sub>7</sub> S <sub>2</sub>
<b>Molecular Weight:</b>	428.44
<b>Target:</b>	Bacterial; Antibiotic; Beta-lactamase
<b>Pathway:</b>	Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Ceftibuten (Sch39720) hydrate, an antibiotic, is an orally active cephalosporin, possesses potent activity in vitro against a wide range of gram-negative and certain gram-positive pathogens <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	β-lactam
<b>In Vitro</b>	Ceftibuten (Sch39720) hydrate is highly active against Haemophilus influenza, Escherichia coli, Klebsiella sp., and Proteus sp. and moderately active against Serratia sp. and Streptococcus pyogenes. Ceftibuten hydrate is relatively inactive against enterococci and staphylococci and is only weakly active against Pseudomonas aeruginosa and obligate anaerobes. It is also stable in the presence of most β-lactamase-producing organisms except βBacteroides fragilis. Ceftibuten hydrate is very active against strains of the family Enterobacteriaceae (mean MIC for 90% of strains=0.25 μg/ml) but less active against Campylobacterjejuni (mean MIC for 90% of strains=16.0 μg/ml) <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Ceftibuten hydrate, a biologically stableβ-lactam antibiotic, has been shown to be transported by the small peptide transport system, to have relatively high affinity for the carrier and to show clear stereoselective and proton-gradient dependent transport characteristics in rat intestinal brush-border membrane vesicles <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- SLAS Discov. 2020 Sep;25(8):895-905.

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

### REFERENCES

- [1]. Shawar R, et al. Comparative in vitro activity of ceftibuten (Sch 39720) against bacterial enteropathogens. Antimicrob Agents Chemother. 1989;33(5):781-784.
- [2]. Kearns GL, et al. Single-dose pharmacokinetics of ceftibuten (SCH 39720) in infants and children. Antimicrob Agents Chemother. 1991;35(10):2078-2084.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA