

Product Data Sheet

Cefroxadine

Cat. No.: HY-107064 CAS No.: 51762-05-1 Molecular Formula: $C_{16}H_{19}N_3O_5S$

Molecular Weight: 365.4

Target: Bacterial; Antibiotic
Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Cefroxadine (CGP 9000) is an orally active cephalosporin antibiotic. Cefroxadine is more effective than cephalexin against Escherichia coli and Klebsiella pneumoniae with MIC values of 3.13 and 1.56 μ g/mL respectively with a concentration of 10 ⁶ μ g/mL. Cefroxadine can be used for the research of infection ^[1] .	
IC ₅₀ & Target	β-lactam	
In Vitro	Cefroxadine (10^6 - 10^8 µg/mL; overnight) shows antibacterial activities against S. aureus, E. coli, S. typhi, S. paratyphi, S. schottmuelleri, K. apneumoniae and P. mirabilis with MIC values of 1.56, 3.31, 1.56, 1.56, 1.56, 1.56 and 6.25 µg/mL respectively with a concentration of 10^6 µg/mL $^{[1]}$.Cefroxadine (10^4 - 10^8 µg/mL; overnight) shows antibacterial activities against 100 E. coli strains with MIC $_{50}$ and MIC $_{75}$ values of 4.8-11.5 µg/mL and 6-20 µg/mL, respectively $^{[1]}$. MCE has not independently confirmed the accuracy of these methods. They are for reference only.	
In Vivo	Cefroxadine (0-30 mg/kg; p.o. 0 and 3 h after infection) shows a better effect than cephalexin in vivo ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. Animal Model: Mice with E. coli ML4707 and K. pneumoniae GN6445 infection ^[1] Dosage: 0-30 mg/kg	

Animal Model: Mice with E. coli ML4707 and K. pneumoniae GN6445 infection^[1] Dosage: 0-30 mg/kg Administration: Oral gavage; 0-30 mg/kg; 0 and 3 h after infection Result: Showed a better effect than cephalexin in vivo with ED₅₀ values of 21.4 and 10.9 mg/kg for E. coli ML4707 and K. pneumoniae GN6445 in vivo.

REFERENCES

[1]. Yasuda K, et al Cefroxadine (CGP-9000), an orally active cephalosporin. Antimicrob Agents Chemother. 1980 Jul;18(1):105-10.

 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$

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