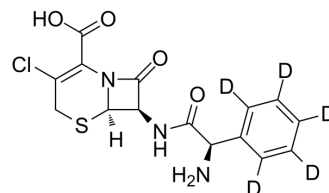


## Cefaclor-d<sub>5</sub>

<b>Cat. No.:</b>	HY-B0198S		
<b>CAS No.:</b>	1426173-90-1		
<b>Molecular Formula:</b>	C <sub>15</sub> H <sub>9</sub> D <sub>5</sub> ClN <sub>3</sub> O <sub>4</sub> S		
<b>Molecular Weight:</b>	372.84		
<b>Target:</b>	Bacterial; Antibiotic		
<b>Pathway:</b>	Anti-infection		
<b>Storage:</b>	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

#### Description

Cefaclor-d<sub>5</sub> is the deuterium labeled Cefaclor. Cefaclor is an effective antibiotic agent, and specifically binds to penicillin-binding protein 3 (PBP 3)[1].

#### In Vitro

Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.

[2]. Chambers HF, et al. Characterization of penicillin-binding protein 2 of *Staphylococcus aureus*: deacylation reaction and identification of two penicillin-binding peptides. *Antimicrob Agents Chemother.* 1992 Mar;36(3):656-61.

**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

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