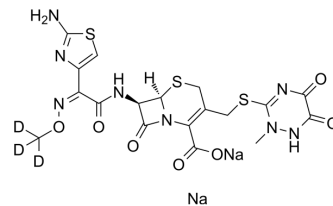


Ceftriaxone-d₃ disodium

Cat. No.:	HY-B0712S		
CAS No.:	1132650-38-4		
Molecular Formula:	C ₁₈ H ₁₄ D ₃ N ₈ Na ₂ O ₇ S ₃		
Molecular Weight:	602.57		
Target:	Bacterial; Antibiotic		
Pathway:	Anti-infection		
Storage:	Powder	-20°C	3 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 31.25 mg/mL (51.86 mM; Need ultrasonic and warming)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	1.6596 mL	8.2978 mL	16.5956 mL
5 mM	0.3319 mL	1.6596 mL	3.3191 mL
10 mM	0.1660 mL	0.8298 mL	1.6596 mL

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

BIOLOGICAL ACTIVITY

Description

Ceftriaxone-d₃ (disodium) is the deuterium labeled Ceftriaxone. Ceftriaxone is a third-generation cephalosporin antibiotic with excellent activity against many gram-negative, and reasonable activity against most gram-positive microorganisms. Anti-inflammatory and antioxidant characteristics^{[1][2]}.

IC₅₀ & Target

β-lactam

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^[1].

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]. Nahata MC, et al. Ceftriaxone: a third-generation cephalosporin. Drug Intell Clin Pharm. 1985;19(12):900-906.

[3]. Hakimzadeh E, et al. Ceftriaxone improves hepatorenal damages in mice subjected to D-galactose-induced aging. Life Sci. 2020;258:118119.

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

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