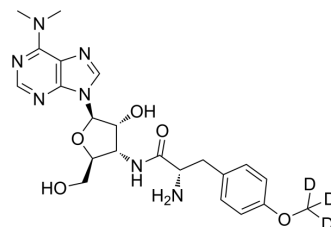


Puromycin-d₃

Cat. No.:	HY-B1743S		
Molecular Formula:	C ₂₂ H ₂₆ D ₃ N ₇ O ₅		
Molecular Weight:	474.53		
Target:	Bacterial; Antibiotic; Isotope-Labeled Compounds		
Pathway:	Anti-infection; Others		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (210.73 mM; Need ultrasonic)

Concentration	Mass			
	1 mg	5 mg	10 mg	
1 mM	2.1073 mL	10.5367 mL	21.0735 mL	
5 mM	0.4215 mL	2.1073 mL	4.2147 mL	
10 mM	0.2107 mL	1.0537 mL	2.1073 mL	

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

BIOLOGICAL ACTIVITY

Description

Puromycin-d₃ is the deuterium labeled Puromycin. Puromycin dihydrochloride is the dihydrochloride salt of puromycin. Puromycin is an aminoglycoside antibiotic that inhibits protein synthesis.

IC₅₀ & Target

Aminoglycoside

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.

CUSTOMER VALIDATION

- Proc Natl Acad Sci U S A. 2023 Apr 11;120(15):e2209435120.

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- Int J Biochem Cell Biol. 2023 Oct 28, 106491.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
 - [2]. Nathans D, et al. Puromycin inhibition of protein synthesis: incorporation of puromycin into peptide chains. *Proc Natl Acad Sci U S A.* 1964 Apr;51:585-92.
 - [3]. Miyamoto-Sato E, et al. Specific bonding of puromycin to full-length protein at the C-terminus. *Nucleic Acids Res.* 2000 Mar 1;28(5):1176-82.
 - [4]. Schmidt EK, et al. SUNSET, a nonradioactive method to monitor protein synthesis. *Nat Methods.* 2009 Apr;6(4):275-7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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