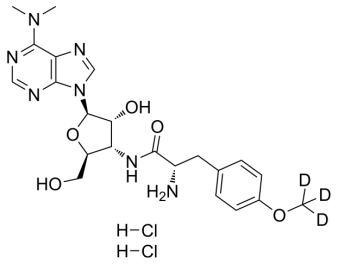
Puromycin-d_3 dihydrochloride

Cat. No.:	HY-B1743AS
Molecular Formula:	$C_{22}H_{28}D_3Cl_2N_7O_5$
Molecular Weight:	547.45
Target:	Bacterial; Antibiotic; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	-20°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



BIOLOGICAL ACTIVITY

Description	Puromycin-d_3 (dihydrochloride) is the deuterium labeled Puromycin dihydrochloride. Puromycin dihydrochloride (CL13900 dihydrochloride), an aminonucleoside antibiotic, inhibits protein synthesis[1].
IC_{50} & 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.

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 intopeptide 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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