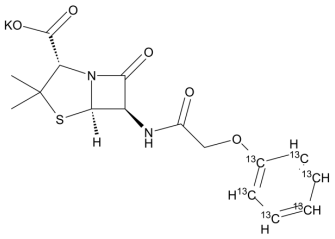
Penicillin V-$^{13}C_6$ potassium

Cat. No.:	HY-B0975S
Molecular Formula:	$C_{10}{}^{13}C_6H_{17}KN_2O_5S$
Molecular Weight:	394.44
Target:	Bacterial; Antibiotic; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Penicillin V-$^{13}C_6$ (potassium) is the $^{13}C_6$ labeled Penicillin V (potassium). Penicillin V Potassium (Phenoxymethylpenicillin potassium salt) is an orally active antibiotic. Penicillin V Potassium inhibits the growth of Streptococci, C. difficile and S. aureus. Penicillin V Potassium can be used for the research of otitis, sinusitis, pharyngitis and tonsillitis.
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]. Hermansson A, et, al. Prevention of experimental acute otitis media with penicillin V. Acta Otolaryngol. Jan-Feb 1990;109(1-2):119-23.

[2]. Kamme C, et, al. In vitro effect on group A streptococci of loracarbef versus cefadroxil, cefaclor and penicillin V. Scand J Infect Dis. 1993;25(1):37-42.

[3]. Norén T, et, al. In vitro susceptibility to 17 antimicrobials of clinical Clostridium difficile isolates collected in 1993-2007 in Sweden. Clin Microbiol Infect. 2010 Aug;16(8):1104-10.

[4]. Overbosch D, et, al. Comparative pharmacodynamics and clinical pharmacokinetics of phenoxymethylpenicillin and pheneticillin. Br J Clin Pharmacol. 1985 May;19(5):657-68.

[5]. Sabath LD. Et, al. Phenoxymethylpenicillin (penicillin V) and phenethicillin. Med Clin North Am. 1970 Sep;54(5):1101-11.

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

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