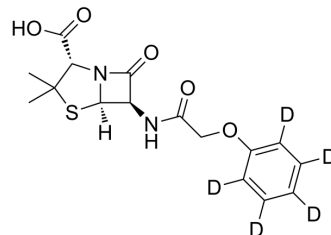


## Penicillin V-d<sub>5</sub>

<b>Cat. No.:</b>	HY-B0975AS	
<b>CAS No.:</b>	1356837-87-0	
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>13</sub> D <sub>5</sub> N <sub>2</sub> O <sub>5</sub> S	
<b>Molecular Weight:</b>	355.42	
<b>Target:</b>	Bacterial; Antibiotic; Isotope-Labeled Compounds	
<b>Pathway:</b>	Anti-infection; Others	
<b>Storage:</b>	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



### BIOLOGICAL ACTIVITY

#### Description

Penicillin V-d<sub>5</sub> (Phenoxymethylpenicillin-d<sub>5</sub>) is the deuterium labeled Penicillin V. Penicillin V (Phenoxymethylpenicillin) is an orally active antibiotic. Penicillin V inhibits the growth of Streptococci, C. difficile and S. aureus. Penicillin V can be used for the research of otitis, sinusitis, pharyngitis and tonsillitis[1][2][3][4].

#### 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]. Sabath LD. Et, al. Phenoxymethylpenicillin (penicillin V) and pheneticillin. *Med Clin North Am.* 1970 Sep;54(5):1101-11.
- [3]. 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.
- [4]. 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.
- [5]. Overbosch D, et, al. Comparative pharmacodynamics and clinical pharmacokinetics of phenoxymethylpenicillin and pheneticillin. *Br J Clin Pharmacol.* 1985 May;19(5):657-68.
- [6]. Hermansson A, et, al. Prevention of experimental acute otitis media with penicillin V. *Acta Otolaryngol.* Jan-Feb 1990;109(1-2):119-23.

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

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