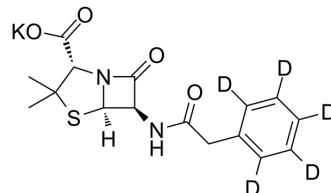


## Penicillin G-d<sub>5</sub> potassium

<b>Cat. No.:</b>	HY-17591S		
<b>Molecular Formula:</b>	C <sub>16</sub> H <sub>12</sub> D <sub>5</sub> KN <sub>2</sub> O <sub>4</sub> S		
<b>Molecular Weight:</b>	377.51		
<b>Target:</b>	Bacterial; Antibiotic; Isotope-Labeled Compounds		
<b>Pathway:</b>	Anti-infection; Others		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

<b>Description</b>	Penicillin G-d <sub>5</sub> (potassium) is the deuterium labeled Penicillin G potassium. Penicillin G potassium is a fast-acting antibiotic; used to treat bacterial infections that affect the blood, heart, lungs, joints, and genital areas[1][2].
<b>In Vitro</b>	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]. Roussel AJ, et al. Evaluation of the effects of penicillin G potassium and potassium chloride on the motility of the large intestine in horses. *Am J Vet Res.* 2003 Nov;64(11):1360-3.
- [3]. Byra C, et al. Decreased mortality of weaned pigs with *Streptococcus suis* with the use of in-water potassium penicillin G. *Can Vet J.* 2011 Mar;52(3):272-6.

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

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