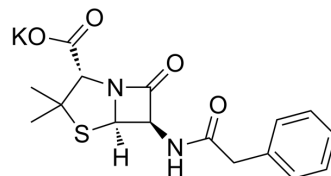


## Penicillin G potassium

Cat. No.:	HY-17591
CAS No.:	113-98-4
Molecular Formula:	C <sub>16</sub> H <sub>17</sub> KN <sub>2</sub> O <sub>4</sub> S
Molecular Weight:	372.48
Target:	Bacterial; Antibiotic
Pathway:	Anti-infection
Storage:	4°C, sealed storage, away from moisture * The compound is unstable in solutions, freshly prepared is recommended.



### SOLVENT & SOLUBILITY

In Vitro	H <sub>2</sub> O : 100 mg/mL (268.47 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Concentration	Mass	1 mg	5 mg	10 mg	
				1 mM	2.6847 mL	13.4235 mL	26.8471 mL
				5 mM	0.5369 mL	2.6847 mL	5.3694 mL
				10 mM	0.2685 mL	1.3424 mL	2.6847 mL
Please refer to the solubility information to select the appropriate solvent.							
In Vivo	1. Add each solvent one by one: PBS Solubility: 100 mg/mL (268.47 mM); Clear solution; Need ultrasonic						

### BIOLOGICAL ACTIVITY

Description	Penicillin G potassium is a fast-acting penicillin family antibiotic. Penicillin G potassium can be used for the research of bacterial infections that affect the blood, heart, lungs, joints, and genital areas <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	β-lactam
In Vitro	Penicillin G (16-128 μg/mL, 0-20 h) is used in combination with promethazine (32 μg/mL) to inhibit the growth and viability of <i>E. coli</i> <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### CUSTOMER VALIDATION

- Theranostics. 2022 Jan 1;12(3):1187-1203.
- Cancer Res. 2023 Feb 6;CAN-22-3169.
- EBioMedicine. 2022 Apr;78:103943.
- Chemosphere. 2019 Jun;225:378-387.
- Int Immunopharmacol. 2024 Jan 16;128:111524.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

---

## REFERENCES

- [1]. Lehtinen J, et al. Promethazine renders Escherichia coli susceptible to penicillin G: real-time measurement of bacterial susceptibility by fluoro-luminometry. Int J Antimicrob Agents. 2007 Jul;30(1):44-51.
- [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.**

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA