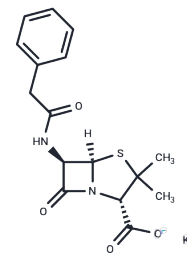


## Penicillin G potassium

## Chemical Properties

CAS No. :	113-98-4
Formula:	C <sub>16</sub> H <sub>17</sub> KN <sub>2</sub> O <sub>4</sub> S
Molecular Weight:	372.48
Storage:	Powder: -20°C for 3 years Actual storage temperature shall be subject to the COA.



## Biological Description

Description	Penicillin G potassium (Benzylpenicillin potassium) is the potassium salt form of penicillin G, a broad-spectrum penicillin antibiotic.
Targets(IC50)	Anti-infection,Antibacterial,Antibiotic
In vivo	Potassium penicillin G administered in drinking water is effective in reducing mortality associated with <i>S. suis</i> infection and reducing tonsillar carriage of <i>S. suis</i> that may lead to disease and be a source of pig-to-pig transmission of infection[1].
Animal Research	Fresh stock solution was prepared twice daily by an individual who was not involved with assessment of the study pigs. The test article was administered via the drinking water for 5 d over 2 periods of treatment. The first treatment period commenced on the day of weaning, when the pigs were moved into the nursery barns (Day 1) and ended on Day 5. The second treatment period began on Day 21 and ended on Day 25. The Control group did not receive treatment[1].

## Solubility Information

Solubility	H <sub>2</sub> O: 80 mg/mL (214.78 mM),Sonication is recommended. DMSO: 22.73 mg/mL (61.02 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 3.57 mg/mL (9.58 mM),Solution. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	1mg	5mg	10mg
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
50 mM	0.0537 mL	0.2685 mL	0.5369 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Byra C , Gadbois P , Cox W R , et al. Decreased mortality of weaned pigs with Streptococcus suis with the use of in-water potassium penicillin G[J]. Canadian Veterinary Journal, 2011, 52(3):272.

Roussel A J , Hooper R N , Cohen N D , et al. Evaluation of the effects of penicillin G potassium and potassium chloride on the motility of the large intestine in horses[J]. American Journal of Veterinary Research, 2003, 64(11): 1360-1363.

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