

PRODUCT INFORMATION



Penicillin V (potassium salt)

Item No. 23635

CAS Registry No.: 132-98-9
Formal Name: (2S,5R,6R)-3,3-dimethyl-7-oxo-6-[[2-phenoxyacetyl]amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monopotassium salt

Synonym: Phenoxymethylpenicillin

MF: C₁₆H₁₇N₂O₅S • K

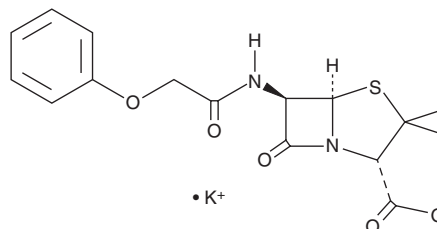
FW: 388.5

Purity: ≥98%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Penicillin V (potassium salt) is supplied as a crystalline solid. Aqueous solutions of penicillin V (potassium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of penicillin V (potassium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Penicillin V is a β -lactam antibiotic that inhibits the growth of bacteria.¹⁻³ *In vitro*, penicillin V inhibits the growth of clinical isolates of *Streptococci* (MICs = 0.004-0.008 mg/l) and *C. difficile* (MICs = 1 to >256 mg/l).^{1,2} Penicillin V also inhibits growth of *S. aureus in vitro* (MIC = 0.016 mg/l) and *in vivo* in a thigh model of infection in mice.³ It inhibits the growth of *S. pyogenes* in mice following one or two dose therapy with curative dose (CD₅₀) values of 0.207 and 0.031 mg, respectively.⁴ Penicillin V (100 mg/kg per day, p.o.) prevents experimental acute otitis media in rats when administered prior to infection by pneumococci.⁵ Formulations containing penicillin V have been used to treat bacterial infections of the skin, throat, ear, mouth, and respiratory tract.

References

1. Kamme, C. and Petersson, A.C. In vitro effect on group A streptococci of loracarbef versus cefadroxil, cefaclor and penicillin V. *Scand. J. Infect. Dis.* **25(1)**, 37-42 (1993).
2. Norén, T., Alriksson, I., Akerlund, T., et al. In vitro susceptibility to 17 antimicrobials of clinical *Clostridium difficile* isolates collected in 1993-2007 in Sweden. *Clin. Microbiol. Infect.* **16(8)**, 1104-1110 (2010).
3. Overbosch, D., Mattie, H., and Van Furth, R. Comparative pharmacodynamics and clinical pharmacokinetics of phenoxymethylpenicillin and pheneticillin. *Br. J. Clin. Pharmacol.* **19(5)**, 657-668 (1985).
4. Powell, H.M. and Culbertson, C.G. Effectiveness of phenoxymethyl penicillin V, and sodium penicillin G against hemolytic *Streptococcus* infection in white mice. *Proc. Soc. Exp. Biol. Med.* **90(1)**, 186-187 (1955).
5. Hermansson, A., Prellner, K., and Hellström, S. Prevention of experimental acute otitis media with penicillin V. *Acta Otolaryngol.* **109(1-2)**, 119-123 (1990).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/22/2022

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897

[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM

WWW.CAYMANCHEM.COM