

CERTIFICATE OF ANALYSIS

PRODUCT:	Penicillin G Potassium C ₁₆ H ₁₇ KN ₂ O ₄ S; M.W. 372.5; CAS: [113-98-4]
PRODUCT NUMBER:	P-1681
LOT NUMBER:	J1230
APPEARANCE:	White to Off white crystalline powder
ASSAY:	99.5%
POTENCY (Anhydrous):	1596 U/mg
CRYSTALLINITY:	Conforms
IDENTIFICATION (IR):	Conforms
LOSS on DRYING:	0.1%
ph (6%, H₂O, 25°C):	5.5
DESCRIPTION:	Penicillin G is a naturally occurring beta lactam antibiotic produced by the Penicillium fungus. It is manipulated and used as the basis for many other important semi-synthetic compounds. Like other beta lactams, it works by inhibiting cell wall production in non-resistant cells by breaking the links between peptidoglycans and causing the production of cell wall damaging autolysins. By binding to specific penicillin-binding proteins (PBPs) located inside the bacterial cell wall, penicillin G inhibits the third and last stage of bacterial cell wall synthesis. Cell lysis is then mediated by bacterial cell wall autolytic enzymes such as autolysins; it is possible that penicillin G interferes with an autolysin inhibitor.
STORAGE & HANDLING:	Store desiccated at Room Temperature (+ 20°C). <u>WARNING:</u> HARMFUL! CAUTION: For research use only. Not for human or drug use. The pharmacological and toxicological properties of this product have not been fully investigated. Use caution when handling. Do not use this compound if you are not fully trained or are unaware of the hazards involved. Verified SK