A.G. Scientific, Inc.

6450 Lusk Blvd. Suite E102 San Diego, CA 92121



CERTIFICATE OF ANALYSIS

PRODUCT: Penicillin G Potassium Salt, USP

 $C_{16}H_{17}KN_2O_4S$, M.W. 372.49, CAS# [113-98-4]

P-1681

LOT NUMBER: B1813

APPEARANCE: White to off-white crystalline powder

IDENTIFICATION: Conforms

LOSS ON DRYING: 0.1%

pH: 6.4

POTENCY: 1584 u/mg

(On dried basis)

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 peptidogylocans 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.

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STORAGE & HANDLING: Store at +20°C. WARNING: HARMFUL!

CAUTION: For laboratory research & scientific manufacturing 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: DD

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