

Penicillin G Potassium Salt

Cell Culture Tested

Product Code: TC187

Product Description :

Molecular Weight: 372.48

Molecular Formula: $C_{16}H_{17}KN_2O_4S$

CAS No: 113-98-4

Synonym: Benzyl penicillin potassium salt

Penicillin is a secondary metabolite produced by the fungus *Penicillium*. It is a β -lactam antibiotic which works by inhibiting formation of peptidoglycan cross links in bacterial cell wall. β -lactam moiety of penicillin binds to the enzyme that links peptidoglycan molecules in bacteria and this weakens the cell wall of bacterium when it multiplies. Penicillin G targets primarily gram positive bacteria including *Staphylococcus* and *Streptococcus*.

In cell culture, Penicillin G potassium salt is used as an anti-microbial agent to prevent contamination and as a selective agent in Mycoplasma isolation media.

One international unit or USP unit Penicillin is equivalent the antibiotic activity of 0.625 μ g Penicillin G.

Directions :

For cell culture applications, penicillin G potassium salt is used at concentration of 100,000U/L.

Quality Control:

Appearance

White to off white crystalline powder

Solubility

Clear colourless to slight yellow solution at 10g in 100ml of water.

pH of 10% solution in water

5.50 - 7.50

Loss on drying (105°C; 1 h)

NMT 1%

Assay

NLT 95.00%

FTIR (KBr disc)

Matches with standard pattern

Specific optical rotation [α] 20/D

270° to 300°

Potency (μ /mg)

1440.00 -1680.00

Antibiotic sensitivity test

Complies

Cell Culture Test

Passes

Storage and Shelf Life:

Store at 2-8°C away from bright light.

Shelf life is 36 months.

Stock solution remain stable for 3 days at 37°C and for approximately 2 to 3 weeks at 2 - 8°C

Use before expiry date given on the product label.

Disclaimer :

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