



Penicillin G Sodium Salt

Penicillin G sodium is a cornerstone antibiotic of beta lactam class. It works by specifically binding to and inhibiting D-alanyl-D-alanine carboxypeptidase, an enzyme that is critical to the formation of peptidoglycan, which gives bacterial cells rigidity and protection. This prevents the bacteria from synthesizing their cell wall, which results in lysis or death.

Cat. Number	AS-2040
CAS Number	69-57-8
Additional CAS	61-33-6
MDL Number	MFCD00069666
PubChem	310278565
Molecular Weight	356.37 gr/mol
Molecular Formula	C ₁₆ H ₁₇ N ₂ NaO ₄ S
Storage Temperature	+4°C
Form and Color	Crystalline Powder, White to Off-White
Assay	96.0 - 102.0 %
Solubility	Very Soluble in Water, Insoluble in Fatty Oils and in Liquid Paraffin
Identification	A, B, C, D
pH	5.5 - 7.5 (2g/20ml in water)
Specific Optical Rotation	+285 - +310 °
Absorbance	264nm: 0.80 - 0.88 280nm: ≤ 0.10 325nm: ≤ 0.10
Individual Impurity	≤ 1.0%
2-Ethylhexanoic acid	≤ 0.5%
Loss on Drying	≤ 1.0%
Bacterial Endotoxins	≤ 0.16IU/mg
Potency	≥ 1645IU/m