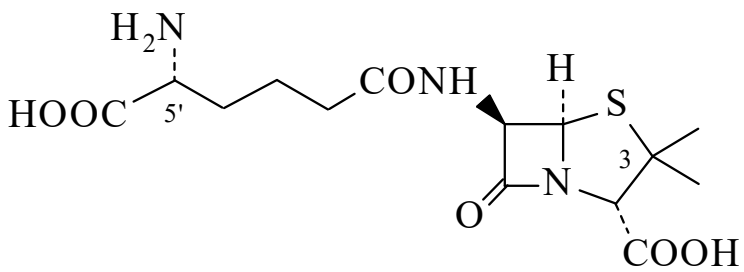
>>**Entry Name: Penicillin N**

Synonym(s): 6-(5-Amino-5-carboxyvaleramido)penicillanic acid. δ-(α-Aminoadipoyl)penicillin. **Adicillin,** BAN, INN**.** Addicillin. Intermetin. Salmotin. Synnematin B. Cephalosporin N (incorr.)



CAS Registry Number: 525-94-0

Molecular Formula: $C_{14}H_{21}N_3O_6S$
Molecular Weight: 359.402
Accurate Mass: 359.115107
Percentage Composition: C 46.79%; H 5.89%; N 11.69%; O 26.71%; S 8.92%
Biological Source: Isol. from fungi and streptomycetes including *Cephalosporium acremonium* and *Streptomyces clavuligerus*. Also from *Cephalosporium salmosynnematum, Cephalosporium chrysogenum, Paecilomyces persicinus* and *Emericillopsis minima*
Development Status: Discontinued
pKa Value: pK_{a1} 2.8; pK_{a2} 3.2; pK_{a3} 9.8
Calculated Log P Data: Log P –3.31 (calc)
Hazard & Toxicity: LD_{50} (mus, ipr) 5000 mg/kg

>>**Derivative:** Ba salt

Physical Description: Powder
Optical Rotation: $[\alpha]_D^{20}$+187 (c, 0.6 in H_2O)
Solubility: Sol. H_2O

>>**Derivative:** 5'-Epimer
Synonym(s): Isopenicillin N. Penicillin M

CAS Registry Number: 58678-43-6

Biological Source: From *Penicillium chrysogenum* and *Streptomyces tokunonensis*
Use/Importance: Less biol. active than Penicillin N
UV: [neutral] λ_{max} (H_2O) (Berdy)

>>**Derivative:** 5'-Epimer, 5'-*N*-Ac
Synonym(s): *N*-Acetylpenicillin N

CAS Registry Number: 84713-89-3

Molecular Formula: $C_{16}H_{23}N_3O_7S$
Molecular Weight: 401.44
Accurate Mass: 401.125672
Percentage Composition: C 47.87%; H 5.77%; N 10.47%; O 27.90%; S 7.99%
Biological Source: From *Streptomyces tokunonensis*
Use/Importance: Active against β-lactam sensitive *E. coli*

>>**Derivative:** 3-De-α-Me
Synonym(s): Norpenicillin N. Antibiotic 13285A2

Molecular Formula: $C_{13}H_{19}N_3O_6S$
Molecular Weight: 345.376
Accurate Mass: 345.099457
Percentage Composition: C 45.21%; H 5.54%; N 12.17%; O 27.79%; S 9.28%
Biological Source: From *Streptomyces* sp.

https://www.baizuoyan.com - CopyRight ©baizuoyan