

Product Data Sheet

Product Name: Amoxicillin-d4

Cat. No.: GC40232

Chemical Properties

Cas. No. 2673270-36-3

SMILES OC1=C([2H])C([2H])=C([C@@H](N)C(N[C@@H]2C(N3[C@]2([H])SC(C)(C)[C@@H]3C(O)=O)=O)=O)C([2H])=C1[2H]

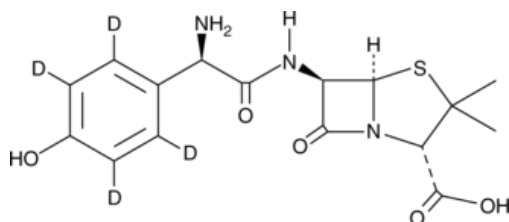
Formula C₁₆H₁₅D₄N₃O₅S M.Wt 369.4

Solubility 0.1 M Acetic Acid: Warmed Storage Store at -20°C

General For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the tips ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Evaluation sample solution : ship with blue ice All other available size: ship with RT , or Condition blue ice upon request.

Structure



Background

Amoxicillin-d4 is intended for use as an internal standard for the quantification of amoxicillin by GC- or LC-MS. Amoxicillin is an orally bioavailable, semisynthetic β -lactam antibiotic. It inhibits the growth of 30 isolates of *P. mirabilis* and 89% of 30 *E. coli* strains when used at concentrations greater than or equal to 5 and 10 $\mu\text{g/ml}$, respectively, but resistance develops in strains of *Klebsiella*, *Enterobacter*, and indole-positive *Proteus* species. Amoxicillin is susceptible to bacterial β -lactamases but is active against β -lactamase-producing bacteria when used in combination with β -lactamase antibiotics such as clavulanic acid with MIC values of greater than 4,096 and 16 $\mu\text{g/ml}$ without or with clavulanic acid, respectively, against 46 clinical isolates of β -lactamase-producing *E. coli*. Formulations containing amoxicillin have been used in the treatment of a variety of bacterial infections.

Caution: Product has not been fully validated for medical applications. For research use only.

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