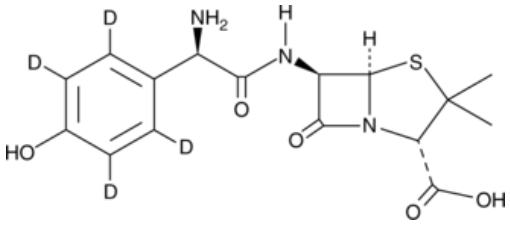
Product Data Sheet

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 tips	For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20°C for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or 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 µg/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 µg/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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