

Product Data Sheet

Product Name: Ampicillin-d5

Cat. No.: GC46849

Chemical Properties

Cas. No. 1426173-65-0

SMILES O=C(N[C@@H]1C(N2[C@]1([H])SC(C)(C)[C@@H]2C(O)=O)=O)C(N)C3=C([2H])C([2H])=C([2H])C([2H])=C3[2H]

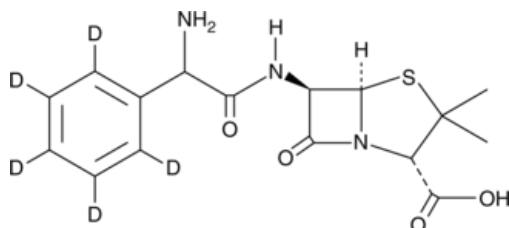
Formula C₁₆H₁₄D₅N₃O₄S M.Wt 354.4

Solubility H₂O : 4.9 mg/mL (13.82 mM);
ultrasonic and warming and adjust
pH to 9 with NaOH and heat to 60°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

Ampicillin-d₅ is intended for use as an internal standard for the quantification of ampicillin by GC- or LC-MS. Ampicillin is a broad-spectrum antibiotic with activity against Gram-positive and Gram-negative bacteria, including veterinary isolates of *S. pseudintermedius*, *S. aureus*, *E. coli*, *Pasteurella*, and *S. canis* (MIC₅₀s = 0.25, 0.5, 2, 0.12, and 0.25 µg/ml, respectively).¹ *In vivo*, ampicillin (80 mg/kg, i.v.) reduces cough frequency, tachypnea, dyspnea, and fever and increases survival in a baboon (*P. cynocephalus*) model of pneumococcal pneumonia.² Formulations containing ampicillin have been used to treat a variety of bacterial infections.

1. Awji, E.G., Damte, D., Lee, S.-J., et al. The in vitro activity of 15 antimicrobial agents against

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

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bacterial isolates from dogs J. Vet. Med. Sci. 74(8)1091-1094(2012) 2. Reyes, L.F., Restrepo, M.I., Hinojosa, C.A., et al. A non-human primate model of severe pneumococcal pneumonia PLoS One 11(11)e0166092(2016)

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