

Product Data Sheet

Product Name: Clarithromycin-13C-d3

Cat. No.: GC47099

Chemical Properties

Cas. No. 2699608-30-3

SMILES O=C1[C@H](C)C[C@](OC)(C)[C@H](O[C@@]2([H])[C@H](O)[C@@H](N(C)[13C]([2H])([2H])[2H])C[C@@H](C)O2)[C@@H](C)[C@H](O[C@@]3([H])C[C@@](C)(OC)[C@@H](O)[C@H](C)O3)[C@@H](C)C(O[C@H](CC)[C@](O)(C)[C@H](O)[C@H]1C)=O

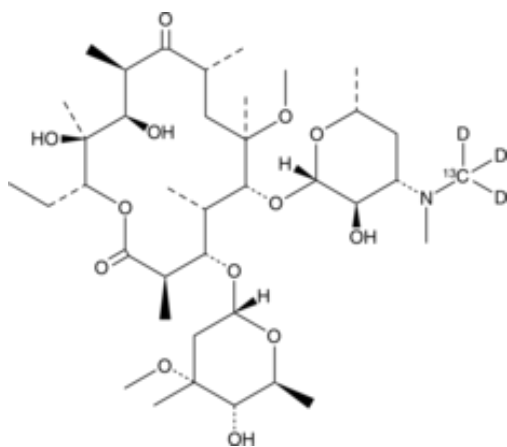
Formula C37[13C]H66D3NO13 M.Wt 752

Solubility DMSO: soluble 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

Clarithromycin-¹³C-d₃ is intended for use as an internal standard for the quantification of clarithromycin by GC- or LC-MS. Clarithromycin is a macrolide antibiotic.^{1,2} It is active against pneumococci, *Streptococcus*, *Listeria*, and *Corynebacterium*. Clarithromycin is a group 2 agent with respect to its interaction with the cytochrome P450 (CYP) isoform 3A4, as it exhibits a lower affinity for CYP3A4 than does erythromycin.^{3,4} Formulations containing clarithromycin have been used in

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the treatment of bacterial infections and, when used in combination with other antibiotics, in the treatment of *H. pylori*.

1.Hardy, D.J., Hensey, D.M., Beyer, J.M., et al.Comparative in vitro activities of new 14-, 15-, and 16-membered macrolidesAntimicrob. Agents Chemother.32(11)1710-1719(1988) 2.Wilson, D.N.The A-Z of bacterial translation inhibitorsCrit. Rev. Biochem. Mol. Biol.44(6)393-433(2009) 3.Westphal, J.F.Macrolide - induced clinically relevant drug interactions with cytochrome P-450A (CYP) 3A4: An update focused on clarithromycin, azithromycin and dirithromycinBr. J. Clin. Pharmacol.50(4)285-295(2000) 4.Williams, J.A., Ring, B.J., Cantrell, V.E., et al.Comparative metabolic capabilities of CYP3A4, CYP3A5, and CYP3A7Drug Metab. Dispos.30(8)883-891(2002)

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