

Product Data Sheet

Product Name: Fusidic Acid-d6

Cat. No.: GC47386

Chemical Properties

Cas. No. N/A

SMILES O[C@@H]1CC[C@@]2(C)[C@](CC[C@@]3(C)[C@@]2([H])[C@H](O)C[C@]4([H])[C@@]3(C)C[C@H](OC(C)=O)/C4=C(C(O)=O)/CC/C=C(C([2H])([2H])[2H])/C([2H])([2H])[2H])([H])[C@@H]1C

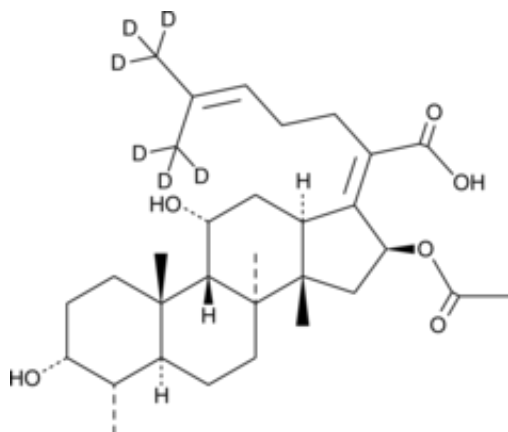
Formula C31H42D6O6 M.Wt 522.8

Solubility Chloroform: sparingly soluble, Methanol: 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

Fusidic acid-d₆ is intended for use as an internal standard for the quantification of fusidic acid by GC- or LC-MS. Fusidic acid is a fusidane antibiotic originally isolated from *F. coccineum*.¹ It is active against the Gram-positive bacteria *S. aureus*, *S. pyogenes*, *C. diphtheriae*, *B. subtilis*, and *C. tetani* (MIC₅₀s = 0.01-20 µg/ml) but not the Gram-negative bacteria *E. coli*, *S. typhimurium*, and *P. vulgaris*.

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

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or the fungi *C. albicans* and *A. fumigatus* ($MIC_{50s} = >100 \mu\text{g/ml}$ for all).² Fusidic acid inhibits ribosomal recycling and protein translocation, processes mediated by elongation factor G (EF-G), in isolated *E. coli* ribosomes ($IC_{50s} = \sim 0.1$ and $\sim 200 \mu\text{M}$, respectively).³ Topical administration of fusidic acid (2%) reduces the number of skin colony forming units (CFUs) and levels of TNF- α and IL-6 in a mouse model of methicillin-resistant *S. aureus* (MRSA) skin wound infection.⁴

1. Verbist, L. The antimicrobial activity of fusidic acid. *J. Antimicrob. Chemother.* 25(Suppl. B)1-5(1990)
2. Godtfredsen, W.O., Jahnsen, S., Lorck, H., et al. Fusidic acid: A new antibiotic. *Nature* 193:987(1962)
3. Savelsbergh, A., Rodnina, M.V., and Wintermeyer, W. Distinct functions of elongation factor G in ribosome recycling and translocation. *RNA* 15(5)772-780(2009)
4. Mohamed, M.F., and Seleem, M.N. Efficacy of short novel antimicrobial and anti-inflammatory peptides in a mouse model of methicillin-resistant *Staphylococcus aureus* (MRSA) skin infection. *Drug Des. Devel. Ther.* 8:1979-1983(2014)

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