

Product Data Sheet

Product Name: Teicoplanin A3-1

Cat. No.: GC16877

Chemical Properties

Cas. No. 93616-27-4

Chemical Name 34-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-22,31-dichloro-7-demethyl-64-O-demethyl-19-deoxy-42-O-α-D-mannopyranosyl-ristomycin A aglycone

SMILES C/C(O)=N/[C@]([C@@](O[C@]([C@@]1([H])/C(O)=N/[C@@](C(O)=O)([H])C(C=C(O)C=C2O[C@]3([H])[C@](O)([H])[C@](O)([H])[C@@](O)([H])[C@@](O3)([H])CO)=C2C4=C(O)C=CC([C@](/N=C(O)/[C@@](/N=C(O)\[C@](/N=C(O)/[C@@](/N=C(O)\[C@@](N)([H])C5=CC6=C(O)C=C5)([H])CC7=CC(Cl)=C

Formula C₇₂H₆₈Cl₂N₈O₂₈

M.Wt 1564.3

Solubility Soluble in ethanol;Soluble in methanol;Soluble in DMSO;Soluble in dimethyl formamide

Store
Storage 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

Teicoplanin A3-1, also known as Antibiotic L 17054, is a glycopeptide antibiotic derived from Actinoplanes teichomyceticus and produces a potent broad spectrum antibiotic activity against gram-positive bacteria.

Teicoplanin A3-1 is a common degradation product of teicoplanins A2-1 to 5, which results from cleavage of the lipoaminoglycoside substituents. Teicoplanins are glycopeptide antibiotics produced by A. teichomyceticus which are effective against

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gram-positive bacteria, including methicillin-resistant Staphylococcus aureus (MRSA) and E. faecalis. As an antibiotic complex, teicoplanin consists of five closely related factors, T-A2-1, 2, 3, 4 and 5 and a more polar factor, T-A3-1. Additionally, as a glycopeptide antibiotic belonging to the same family as vancomycin, teicoplanin blocks cell wall synthesis in Bacillus subtilis, which is accompanied by an intracellular accumulation of UDP-N-acetylmuramyl-pentapeptide [1]. Due to the greater antibacterial activity of teicoplanin than other agents, it has been thoroughly studied as a β -lactamase-resistant agent for the treatment of human infections caused by streptococci and staphylococci, including enterococci [2].

In vitro: Up to now, in vitro study of Teicoplanin A3-1 is still in the development stage.

In vivo: Up to now, in vivo study of Teicoplanin A3-1 is still in the development stage.

References:

- [1]. Somma, S., Gastaldo, L., & Corti, A. Teicoplanin, a new antibiotic from Actinoplanes teichomyceticus nov. sp. Antimicrobial Agents and Chemotherapy. 1984; 26(6): 917-923.
- [2]. Traina, G., & Bonati, M. Pharmacokinetics of teicoplanin in man after intravenous administration. Journal of Pharmacokinetics and Biopharmaceutics. 1984;12(2): 119-128.

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