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**Product Data Sheet**


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Product Name: Teicoplanin A2-2

Cat. No.: GC13713

**Chemical Properties**

Cas. No. 91032-26-7

Chemical Name 34-O-[2-(acetylamino)-2-deoxy-β-D-glucopyranosyl]-22,31-dichloro-7-demethyl-64-O-demethyl-19-deoxy-56-O-[2-deoxy-2-[(8-methyl-1-oxononyl)amino]-β-D-glucopyranosyl]-42-O-α-D-mannopyranosyl-ristomycin A aglycone

SMILES O[C@@H]([C@H](O)[C@@H](CO)O1)[C@H](O)[C@H]1OC2=CC(O)=CC([C@@H](C(O)=O)NC([C@@]([C@@H](C3=CC(Cl)=C(OC4=CC5=CC(OC6=CC=C7C=C6Cl)=C4O[C@H]8[C@H](NC(CCCCCC(C)C)=O)[C@@H](O)[C@H](O)[C@@H](CO)O8)C=C3)O[C@]9([H])O[C@H](CO)[C@@H](O)[C@H](O)[C@H]9NC(C)=O)([H])

Formula C<sub>88</sub>H<sub>97</sub>Cl<sub>2</sub>N<sub>9</sub>O<sub>33</sub> M.Wt 1879.7

Solubility ≤10mg/ml in DMSO;1mg/ml in dimethyl formamide 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**

Teicoplanin A2-2 is a new glycopeptide antibiotic belonging to the same family as vancomycin. Teicoplanin consists of five major components (A2-1 through A2-5), one hydrolysis component (A3-1), and four minor components (RS-1 through RS-4) [1]. Teicoplanin is isolated from the fermentation broth of *Actinoplanes teichomyceticus* nov. sp. and has been endowed with outstanding bactericidal activity against grampositive pathogenic bacteria [2].

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

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In vitro: Teicoplanin inhibited cell wall synthesis in *Bacillus subtilis*, the inhibition is accompanied by an intracellular accumulation of UDP-N-acetyl-muramyl-pentapeptide. In a cell-free system from *Bacillus stearothermophilus*, treatment with teicoplanin (40 µg/ml) inhibited 50% of peptidoglycan synthesis, and 100 µg/ml teicoplanin totally suppressed peptidoglycan synthesis [2].

In vivo: Following intravenous administration, concentrations of teicoplanin were high in lung and bone tissue and low in fat in relative to those in plasma in patients with normal renal function. Animal data showed high concentrations in most tissues, and particularly high in liver and kidneys [3].

### References:

[1] Bernareggi A, Borghi A, Borgonovi M, et al. Teicoplanin metabolism in humans[J]. *Antimicrobial agents and chemotherapy*, 1992, 36(8): 1744-1749.

[2] S. Somma, L. Gastaldo and A. Corti. Teicoplanin, a new antibiotic from *Actinoplanes teichomyceticus* nov. sp. *Antimicrobial Agents and Chemotherapy* 26(6), 917-923 (1984).

[3] Rowland M. Clinical pharmacokinetics of teicoplanin[J]. *Clinical pharmacokinetics*, 1990, 18(3): 184-209

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