
Product Data Sheet

Product Name: Tedizolid HCl

Cat. No.: GC15288

Chemical Properties

Cas. No. N/A

Chemical Name (R)-3-(3-fluoro-4-(6-(2-methyl-2H-tetrazol-5-yl)pyridin-3-yl)phenyl)-5-(hydroxymethyl)oxazolidin-2-one hydrochloride

SMILES FC1=CC(N2C[C@H](CO)OC2=O)=CC=C1C3=CC=C(C4=NN(C)N=N4)N=C3.ClFormula $C_{17}H_{16}ClFN_6O_3$ M.Wt 406.80

Solubility $\geq 13.57\text{mg/mL}$ in DMSO with gentle warming, Limited solubility in EtOH 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**

IC₅₀: for MAO-A (monoamine oxidase-A), 8.7 μM ; for MAO-B, 5.7 μM .

Tedizolid HCl is a reversible, novel oxazolidinone antibiotic. It is the first oxazolidinone to be approved since linezolid in 2000. Tedizolid phosphate is the second commercially available oxazolidinone antibiotic and is the prodrug form of tedizolid with a fixed once-daily dose. As an expanded-spectrum oxazolidinone it has potent activity against a wide range of Gram-positive pathogens [1].

In vitro: In vitro, tedizolid was a reversible inhibitor for both human MAO-A and MAO-B; for MAO-A, the value of IC₅₀ was 8.7 μM , and for MAO-B, the value of IC₅₀ was 5.7 μM . For this two inhibitions, add 46.0 and 2.1 μM of linezolid, respectively would be better [2].

In vivo: It exhibited not only a potent activity against Gram-positive pathogens but also maintained activity against linezolid resistant bacteria. In murine serotonergic model, the number of head twitches was analyzed after tedizolid phosphate was administrated

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

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by intraperitoneal injection [2].

Clinical trial: With 200 mg once daily tedizolid would treat the acute bacterial skin and skin structure infections caused by gram-positive bacteria in phase III clinical trials. The treatment effects of tedizolid for ventilator-acquired and health care-associated pneumonia were currently investigated [3].

References:

[1] Chen KH, Huang YT, Liao CH et al. *In Vitro* Activities of Tedizolid and Linezolid against Gram-Positive Cocci Associated with Acute Bacterial Skin and Skin Structure Infections and Pneumonia. *Antimicrob Agents Chemother.* 2015 Oct;59(10):6262-5.

[2] S. Flanagan, K. Bartizal, S. L. Minassian et al. *In Vitro, In Vivo, and Clinical Studies of Tedizolid To Assess the Potential for Peripheral or Central Monoamine Oxidase Interactions.* *Antimicrob Agents Chemother.* 2013 Jul;57(7):3060-6.

[3] Rybak JM, Marx K, Martin CA. Early experience with tedizolid: clinical efficacy, pharmacodynamics, and resistance. *Pharmacotherapy.* 2014 Nov;34(11):1198-208.

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