

Product Data Sheet

Product Name: AFN-1252

Cat. No.: GC40646

Chemical Properties

Cas. No. 620175-39-5

SMILES O=C1CCC2=CC(/C=C/C(N(CC3=C(C)C(C=CC=C4)=C4O3)C)=O)=CNC2=N1

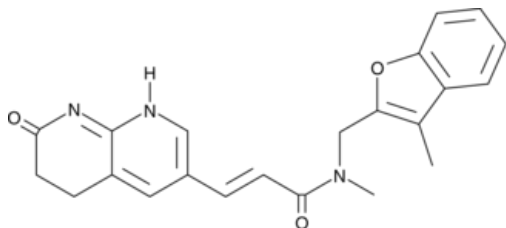
Formula C₂₂H₂₁N₃O₃ M.Wt 375.4

Solubility DMSO : 5.8 mg/mL (15.45 mM; Need ultrasonic) 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

AFN-1252 (Debio 1452) is a potent inhibitor of enoyl-acyl carrier protein reductase (FabI), inhibited all clinical isolates of *Staphylococcus aureus* and *Staphylococcus epidermidis* at concentrations of ≤ 0.12 μ g/mL. IC₅₀ value: Target: Antibiotic agent AFN-1252 was inactive (MIC₉₀, >4 μ g/mL) against clinical isolates of *Streptococcus pneumoniae*, beta-hemolytic streptococci, *Enterococcus* spp., *Enterobacteriaceae*, nonfermentative gram-negative bacilli, and *Moraxella catarrhalis*. These data support the continued development of AFN-1252 for the treatment of patients with resistant staphylococcal infections.

References:

- [1]. Karlowsky JA, et al. AFN-1252, a FabI inhibitor, demonstrates a *Staphylococcus*-specific spectrum of activity. *Antimicrob Agents Chemother.* 2009 Aug;53(8):3544-8.
- [2]. Narasimha Rao K, et al. AFN-1252 is a potent inhibitor of enoyl-ACP reductase from *Burkholderia*

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

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pseudomallei-Crystal structure, mode of action, and biological activity. Protein Sci. 2015 May;24(5):832-40.

[3]. Yao J, et al. Resistance to AFN-1252 arises from missense mutations in Staphylococcus aureus enoyl-acyl carrier protein reductase (FabI). J Biol Chem. 2013 Dec 20;288(51):36261-71.

[4]. Parsons JB, et al. Perturbation of Staphylococcus aureus gene expression by the enoyl-acyl carrier protein reductase inhibitor AFN-1252. Antimicrob Agents Chemother. 2013 May;57(5):2182-90.

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