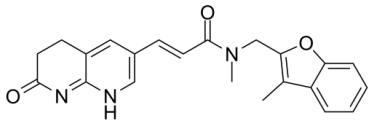
Data Sheet

Product Name:	AFN-1252
Cat. No.:	CS-4313
CAS No.:	620175-39-5
Molecular Formula:	C22H21N3O3
Molecular Weight:	375.42
Target:	Bacterial
Pathway:	Anti-infection
Solubility:	DMSO : 5.8 mg/mL (15.45 mM; Need ultrasonic)



BIOLOGICAL ACTIVITY:

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 μg/ml. IC50 value: Target: Antibiotic agent AFN-1252 was inactive (MIC90, >4 μg/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 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.

CAIndexNames:

2-Propenamide, N-methyl-N-[(3-methyl-2-benzofuranyl)methyl]-3-(5,6,7,8-tetrahydro-7-oxo-1,8-naphthyridin-3-yl)-, (2E)-

SMILES:

O=C(N(C)CC1=C(C)C2=CC=CC=C2O1)/C=C/C(C=C3CC4)=CNC3=NC4=O

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