

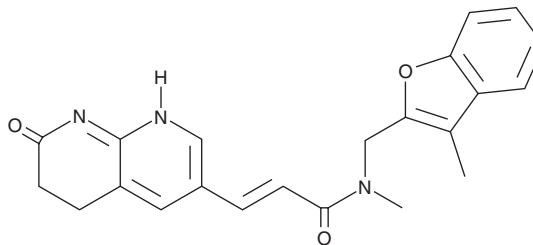
PRODUCT INFORMATION



AFN-1252

Item No. 24686

CAS Registry No.: 620175-39-5
Formal Name: N-methyl-N-[(3-methyl-2E-benzofuranyl)methyl]-3-(5,6,7,8-tetrahydro-7-oxo-1,8-naphthyridin-3-yl)-2-propenamide
Synonyms: API-1252, Debio 1452
MF: C₂₂H₂₁N₃O₃
FW: 375.4
Purity: ≥98%
UV/Vis.: λ_{max}: 252, 286, 322 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

AFN-1252 is supplied as a crystalline solid. A stock solution may be made by dissolving the AFN-1252 in the solvent of choice, which should be purged with an inert gas. AFN-1252 is slightly soluble in methanol and chloroform.

Description

AFN-1252 is an inhibitor of staphylococcal enoyl-acyl carrier protein reductase (FabI; K_i = 12.8 nM), an enzyme that activates bacterial fatty acid biosynthesis.¹⁻³ It is selective for isolates of methicillin-susceptible and methicillin-resistant *S. aureus* (MIC_{90s} = ≤0.008 μg/ml) over isolates of *S. pneumoniae*, β-hemolytic streptococci, *Enterococcus*, *Enterobacteriaceae*, non-fermentative Gram-negative bacilli, and *M. catarrhalis* (MIC_{90s} = >4 μg/ml). *In vivo*, AFN-1252 increases survival in a murine acute lethal septicemia model, showing 100% survival when administered at a single oral dose of 1 mg/kg.¹

References

1. Kaplan, N.O., Albert, M., Awrey, D.E., *et al.* Mode of action, *in vitro* activity, and *in vivo* efficacy of AFN-1252, a selective antistaphylococcal FabI inhibitor. *Antimicrob. Agents Chemother.* **56(11)**, 5865-5874 (2012).
2. Parsons, J.B., Frank, M.W., Subramanian, S., *et al.* Metabolic basis for the differential susceptibility of Gram-positive pathogens to fatty acid synthesis inhibitors. *Proc. Natl. Acad. Sci. U.S.A.* **108(37)**, 15378-15383 (2011).
3. Karlowsky, J.A., Kaplan, N.O., Hafkin, B., *et al.* AFN-1252, a FabI inhibitor, demonstrates a *Staphylococcus*-specific spectrum of activity. *Antimicrob. Agents Chemother.* **53(8)**, 3544-3548 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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