

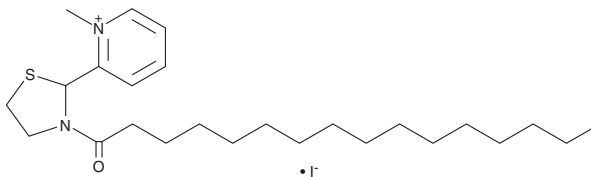
PRODUCT INFORMATION



QPyN16Th

Item No. 42701

Formal Name: 1-methyl-2-(3-palmitoylthiazolidin-2-yl)pyridin-1-ium, monoiodide
MF: C₂₅H₄₃N₂OS • I
FW: 546.6
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years
Special Conditions: Slightly hygroscopic



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

Laboratory Procedures

QPyN16Th is supplied as a solid. A stock solution may be made by dissolving the QPyN16Th in the solvent of choice, which should be purged with an inert gas. QPyN16Th is soluble (≥10 mg/ml) in DMSO and sparingly soluble (1-10 mg/ml) in ethanol.

Description

QPyN16Th is an N-palmitoylated cationic thiazolidine antibiotic.¹ It is selectively active against the Gram-positive bacteria *E. faecalis*, *S. aureus*, and methicillin-resistant *S. aureus* (MRSA; MICs = 1.95 μM for all) over the Gram-negative bacteria *E. coli*, uropathogenic *E. coli* (UPEC), and *P. aeruginosa* (MICs = 500, 125, and 62.5 μM, respectively). QPyN16Th (2 μM) induces membrane permeabilization and depolarization and reactive oxygen species (ROS) production in MRSA. *In vivo*, QPyN16Th (2 μM in the tank water) increases survival in a zebrafish model of intramuscular MRSA infection.

Reference

1. Pious, A., Venkatasubramanian, V., Singaravelu, D.K., *et al.* Synthesis of cationic N-acylated thiazolidine for selective activity against Gram-positive bacteria and evaluation of N-acylation's role in membrane-disrupting activity. *RSC Med. Chem.* (2024).

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.

WARRANTY AND LIMITATION OF REMEDY

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