

PRODUCT INFORMATION



CAY10711

Item No. 19473

CAS Registry No.: 1666171-29-4
Formal Name: N¹,N¹⁷-bis(2,2-diphenylethyl)-2,6,12,16-tetraazaheptadecanedithioamide

MF: C₄₁H₅₄N₆S₂

FW: 695.0

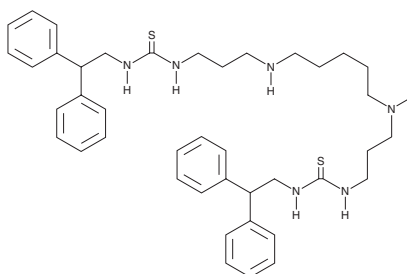
Purity: ≥95%

UV/Vis.: λ_{max}: 241 nm

Supplied as: A crystalline solid

Storage: -20°C

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



Laboratory Procedures

CAY10711 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10711 in the solvent of choice. CAY10711 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of CAY10711 in ethanol and DMSO is approximately 30 mg/ml and approximately 20 mg/ml in DMF.

CAY10711 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10711 should first be dissolved in ethanol and then diluted with the aqueous buffer of choice. CAY10711 has a solubility of approximately 0.04 mg/ml in a 1:20 solution of ethanol:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CAY10711 is a substituted diamine that produces rapid bactericidal activity against both Gram-positive and Gram-negative bacteria, including methicillin-resistant *S. aureus* and stationary-phase bacteria.¹ It displays MIC₉₉ values of 2.9, 11.5, 2.9, and 2.9 μM against *S. aureus* RN4220, *P. aeruginosa* PAO1, *E. coli* ANS1, and MRSA 10082B, respectively.¹ CAY10711 reduces biofilm formation and promotes biofilm dispersal in *P. aeruginosa*. It is synergistic with kanamycin and has limited adverse effects against mammalian cells or *C. elegans* development, survival, or reproduction.¹

Reference

1. Wang, B., Pachaiyappan, B., Gruber, J.D., *et al.* Antibacterial diamines targeting bacterial membranes. *J. Med. Chem.* **59**(7), 3140-3151 (2016).

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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