

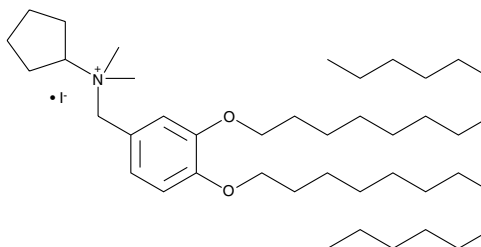
Product Information



CAY10614

Item No. 13615

CAS Registry No.: 1202208-36-3
Formal Name: N-cyclopentyl-N,N-dimethyl-3,4-bis(tetradecyloxy)-benzenemethanaminium, iodide
MF: C₄₂H₇₈NO₂ • I
FW: 756.0
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid



Laboratory Procedures

For long term storage, we suggest that CAY10614 be stored as supplied at -20°C. It should be stable for at least two years.

CAY10614 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10614 in the solvent of choice. CAY10614 is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of CAY10614 in these solvents is approximately 0.14 mg/ml.

If aqueous stock solutions are required for biological experiments, they can best be prepared by diluting the organic solvent into aqueous buffers or isotonic saline. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Lipid A is a lipid-rich component of endotoxin, also known as lipopolysaccharide (LPS), which in turn is part of the outer membrane of Gram-negative bacteria. Lipid A activates toll-like receptor 4 (TLR4), initiating an immune response. CAY10614 is an antagonist of lipid A activation of TLR4, exhibiting an IC₅₀ value of 1.68 μM in a cell-based assay using modified human embryonic kidney (HEK) cells.¹ It does not significantly affect HEK cell viability. In a model of sepsis, CAY10614 dramatically and significantly improves survival of mice given intraperitoneal LPS.¹

Reference

1. Piazza, M., Rossini, C., Fiorentina, S.D., *et al.* Glycolipids and benzylammonium lipids as novel antisepsis agents: Synthesis and biological characterization. *J. Med. Chem.* **52**, 1209-1213 (2009).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/13615

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WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent *via* email to your institution.

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