

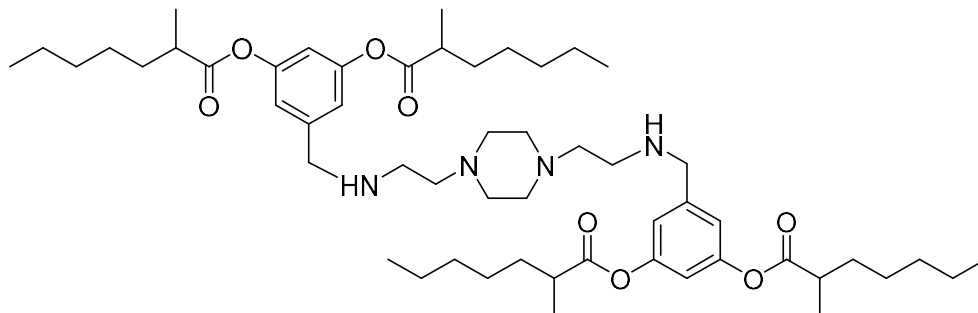
3-A₂-7b

Catalog number: N-1030

Molecular Formula: C₅₄H₈₈N₄O₈

MW: 921.32

CAS: N/A



Alternate Name: (((piperazine-1,4-diylbis(ethane-2,1-diyl))bis(azanediyl))bis(methylene))bis(benzene-5,1,3-triyl) tetrakis(2-methylheptanoate)

Solubility: Methanol, ethanol, DMSO.

Storage and Handling: 3-A₂-7b is stable for at least 1 year when stored as an oil, protected from moisture, and light at -20°C. Solutions of 3-A₂-7b should be stored at -20°C between uses.

Background: 3-A₂-7b is a cationic and degradable lipid used to formulate lipid nanoparticles (LNPs) for delivery of RNA. 3-A₂-7b LNPs delivered Cas9-based genetic editors to the lung in a lung tumor female mouse model, demonstrating therapeutic potential for anti-angiogenic cancer therapy.

References: 1) Lulu Xue et al. "High-throughput barcoding of nanoparticles identifies cationic, degradable lipid-like materials for mRNA delivery to the lungs in female preclinical models" Nature Communications, (2024) 15:1884. DOI: 10.1038/s41467-024-45422-9

Hazardous Properties and Cautions: The toxicological and pharmacological properties of this compound are not fully known. For further information see the MSDS on request. This product is manufactured and shipped only in small quantities, intended for research and development in a laboratory utilizing prudent procedures for handling chemicals of unknown toxicity, under the supervision of persons technically qualified to evaluate potential risks and authorized to enforce appropriate health and safety measures. As with all research chemicals, precautions should be taken to avoid unnecessary exposures or risks.

Warranty and Disclaimer: Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

Technical Data Sheet, Rev 1, 8/8/2025 – **For research use only.** Not intended for diagnostic or therapeutic use.