

## ssPalmE-P4C2

Catalog number: N-1019

**Molecular Formula:**  $C_{84}H_{140}N_2O_{10}S_2$ 

MW: 1402.17

CAS: n/a

**Alternative** Names: O,O'-(((disulfanediylbis(ethane-2,1-diyl))bis(piperidine-1,4-diyl))bis(ethane-2,1-diyl)) bis(2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)chroman-6-yl) disuccinate

**Solubility:** ~5 mg/mL in ethanol, >10 mg/mL dichloromethane.

Storage and Handling: Store dry at -20 °C. Stock solution should be stored frozen (-20 °C or below).

**Background:** ssPalmE-P4C2 is an ionizable lipid with a Vitamin E scaffold that is used to formulate lipid nanoparticles (LNPs) for delivering RNA into cells. The Vitamin E scaffold acts as an adjuvant to activate innate immune signaling. Vaccination with ssPalmE-P4C2 containing LNPs protected against lethal infection by *Toxoplasma gondii* in a mouse model.

## **References:**

R. Oyama et al, "An ionizable lipid material with a Vitamin E scaffold as an mRNA vaccine platform for efficient cytotoxic T cell responses" ACS Nano 2023, 17, 18758-18775

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.

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Technical Data Sheet, Rev 1, 6/27/2024 - For research use only. Not intended for diagnostic or therapeutic use.



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