

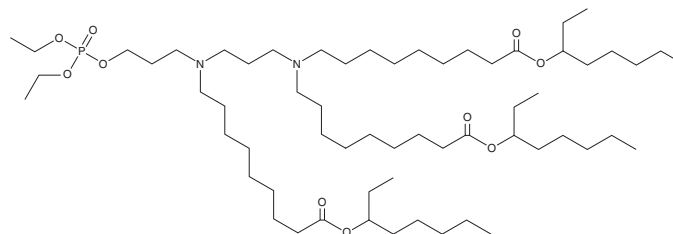
# PRODUCT INFORMATION



## PL1

Item No. 38647

**CAS Registry No.:** 2274812-94-9  
**Formal Name:** di(octan-3-yl) 9,9'-((3-((3-((diethoxyphosphoryl)oxy)propyl)(9-(octan-3-yloxy)-9-oxononyl)amino)propyl)azanediy) dinonanoate



**MF:** C<sub>61</sub>H<sub>121</sub>N<sub>2</sub>O<sub>10</sub>P  
**FW:** 1,073.6  
**Purity:** ≥95%  
**Supplied as:** A solution in ethanol  
**Storage:** -20°C  
**Stability:** ≥2 years

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

### Laboratory Procedures

PL1 is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as chloroform purged with an inert gas can be used.

### Description

PL1 is a multi-tail ionizable cationic phospholipid that has been used in combination with other lipids in the formation of lipid nanoparticles (LNPs) for the delivery of mRNA.<sup>1</sup> LNPs containing PL1 and encapsulating mRNA encoding the co-stimulatory receptor CD137 or OX40 increase T cell antitumor immunity in various mouse xenograft models.

### Reference

1. Li, W., Zhang, X., Zhang, C., *et al.* Biomimetic nanoparticles deliver mRNAs encoding costimulatory receptors and enhance T cell mediated cancer immunotherapy. *Nat. Commun.* **12(1)**, 7264 (2021).

#### 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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