

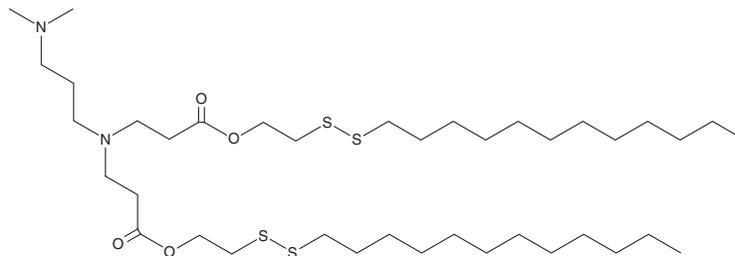
# PRODUCT INFORMATION



## 80-O16B

Item No. 37564

**CAS Registry No.:** 1624618-02-5  
**Formal Name:** N-[3-(dimethylamino)propyl]-N-[3-[2-(dodecylthio)ethoxy]-3-oxopropyl]-β-alanine, 2-(dodecylthio)ethyl ester  
**MF:** C<sub>39</sub>H<sub>78</sub>N<sub>2</sub>O<sub>4</sub>S<sub>4</sub>  
**FW:** 767.3  
**Purity:** ≥95%  
**Supplied as:** A 10 mg/ml solution in methyl acetate  
**Storage:** -20°C  
**Stability:** ≥1 year



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

### Description

80-O16B is a disulfide bond-containing ionizable cationic lipidoid.<sup>1</sup> It has been used in the generation of lipid nanoparticles (LNPs) for the delivery of CRISPR complementary single-guide RNA (sgRNA) and Cas9 for genome editing in mice. LNPs containing 80-O16B conjugated to phenylboronic acid (PBA) and encapsulating an mRNA reporter increase luciferase reporter expression in HeLa cancer cells.<sup>2</sup> LNPs containing 80-O16B conjugated to PBA and encapsulating p53 mRNA decrease the viability of DU145 prostate and SiHa and HeLa cervical cancer cells.

### References

1. Li, Y., Bolinger, J., Yu, Y., *et al.* Intracellular delivery and biodistribution study of CRISPR/Cas9 ribonucleoprotein loaded bioreducible lipidoid nanoparticles. *Biomater. Sci.* **7(2)**, 596-606 (2019).
2. Tang, Q., Liu, J., Jiang, Y., *et al.* Cell-selective messenger RNA delivery and CRISPR/Cas9 genome editing by modulating the interface of phenylboronic acid-derived lipid nanoparticles and cellular surface sialic acid. *ACS Appl. Mater. Interfaces* **11(50)**, 46585-46590 (2019).

#### 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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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