

**Product Name:** DLin-KC2-DMA

**Catalog No.:** 8895

**Batch No.:** 1

CAS Number: 1190197-97-7

IUPAC Name: 2-[2,2-Di-[(9Z,12Z)-octadeca-9,12-dienyl]-1,3-dioxolan-4-yl]-N,N-dimethylethanamine

**1. PHYSICAL AND CHEMICAL PROPERTIES**

**Batch Molecular Formula:** C<sub>43</sub>H<sub>79</sub>NO<sub>2</sub>

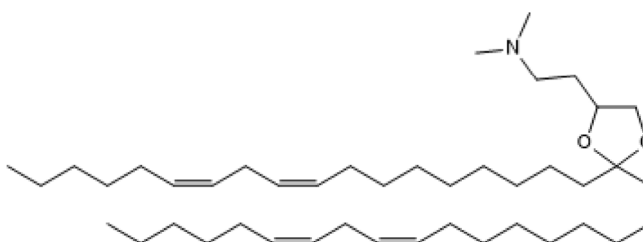
**Batch Molecular Weight:** 642.11

**Physical Appearance:** Colourless liquid

**Solubility:** Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 100mg/mL)

**Storage:** Store at -20°C

**Batch Molecular Structure:**



**2. ANALYTICAL DATA**

**HPLC:** Shows 99.6% purity

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com

techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com

Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors

Tel: +1 612 379 2956

**Product Name:** DLin-KC2-DMA

**Catalog No.:** 8895

**Batch No.:** 1

CAS Number: 1190197-97-7

IUPAC Name: 2-[2,2-Di-[(9Z,12Z)-octadeca-9,12-dienyl]-1,3-dioxolan-4-yl]-N,N-dimethylethanamine

**Description:**

DLin-KC2-DMA is an ionizable cationic lipid (pKa = 6.7), used in the formulation of lipid nanoparticles (LNPs) encapsulating siRNA or plasmid DNA for non-toxic delivery into cells *in vitro* and *in vivo*. This product is supplied pre-dissolved in anhydrous ethanol, 100mg/mL. For more information on LNPs and available components see our Lipid Nanoparticles page.

**Physical and Chemical Properties:**

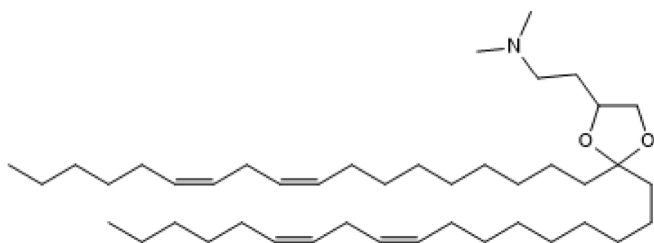
Batch Molecular Formula: C<sub>43</sub>H<sub>79</sub>NO<sub>2</sub>

Batch Molecular Weight: 642.11

Physical Appearance: Colourless liquid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**



**Storage:** Store at -20°C. This product is packaged under an inert atmosphere.

**CAUTION -** This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

**Solubility & Usage Info:**

Soluble in ethanol (supplied pre-dissolved in anhydrous ethanol, 100mg/mL)

This product is supplied dissolved in anhydrous ethanol at a concentration of 100mg/mL

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. \*Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**Other Information:**

18

**References:**

Kulkarni *et al* (2017) Design of lipid nanoparticles for *in vitro* and *in vivo* delivery of plasmid DNA. *Nanomedicine* **13** 1377. PMID: 28038954.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

**bio-techne.com**

info@bio-techne.com  
techsupport@bio-techne.com

**North America**

Tel: (800) 343 7475

**China**

info.cn@bio-techne.com  
Tel: +86 (21) 52380373

**Europe Middle East Africa**

Tel: +44 (0)1235 529449

**Rest of World**

www.tocris.com/distributors  
Tel:+1 612 379 2956