

Product Name: NBD-PE

Catalog No.: 7538

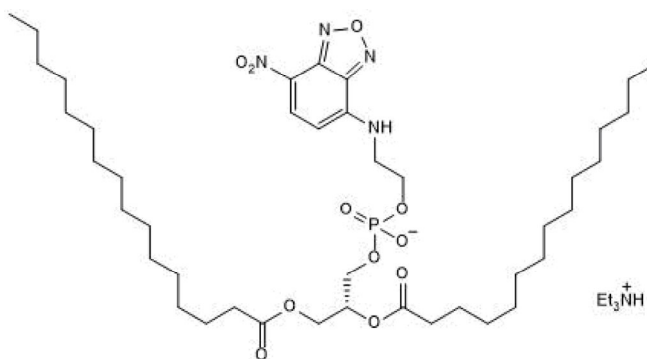
Batch No.: 1

CAS Number: 178119-00-1

IUPAC Name: Triethylammonium (*R*)-2,3-bis(palmitoyloxy)propyl(2-((7-nitrobenzo[c][1,2,5]oxadiazol-4-yl)amino)ethyl)phosphate

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₄₃ H ₇₅ N ₄ O ₁₁ P.C ₆ H ₁₅ N
Batch Molecular Weight:	956.26
Physical Appearance:	Dark brown solid
Solubility:	methanol to 0.50 mM with sonication
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 99.0% purity at 462 nm
UV Spectrum:	Consistent with structure
λ_{max}:	463 nm (MeOH)
λ_{em}:	534 nm (MeOH)

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

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Description:

Key information: NBD-PE is a fluorescent label for lysosomal lipid bodies. Used for: quantitatively measure phospholipidosis, which is useful to screen drugs for SARS-CoV-2 repurposing. NBD-PE can also be used to label giant unilamellar vesicles (GUV). Application: confocal microscopy, fluorescence recovery after photobleaching (FRAP). Properties and Photophysical Data: It consists of a single tail (16:0) phospholipid derivative with an NBD fluorophore conjugated to the head group. Excitation and emission maxima (λ) are 463 nm and 536 nm, respectively, extinction coefficient = 22,000 M⁻¹cm⁻¹.

Physical and Chemical Properties:

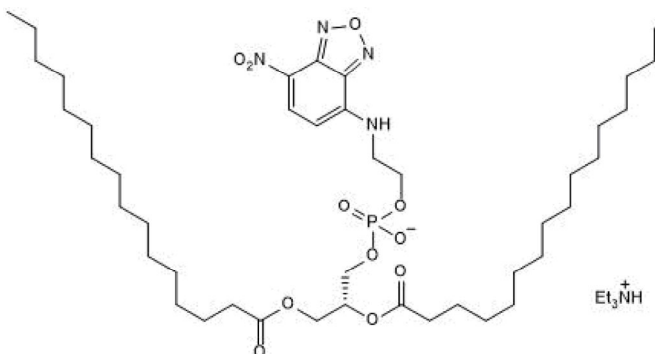
Batch Molecular Formula: C₄₃H₇₅N₄O₁₁P.C₆H₁₅N

Batch Molecular Weight: 956.26

Physical Appearance: Dark brown solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

Tummino et al (2021) Drug-induced phospholipidosis confounds drug repurposing for SARS-CoV-2. *Science* **373** (6554) 541. PMID: 34326236.

Li et al (2020) Programmed magnetic manipulation of vesicles into spatially coded prototissue architectures arrays. *Nat. Commun.* **11** (1) 232. PMID: 31932592.

Morelli et al (2006) Validation of an *in vitro* screen for phospholipidosis using a high-content biology platform. *Cell Biol.Toxicol.* **22** (1) 15. PMID: 16463016.

Storage: Store at -20°C

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:

methanol to 0.50 mM with sonication

Solubility: This compound is only sparingly soluble. An extended period of sonication (approximately 1½ hours) may be required to achieve full dissolution in methanol at 0.5 mM.

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.

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