

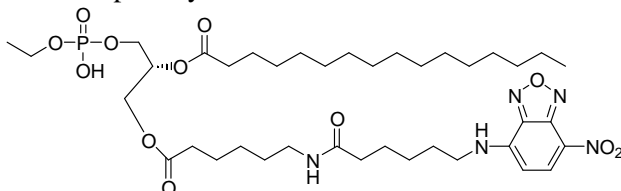


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## Technical Data Sheet

**For research use only**

Product Name: NBD-Labeled Phosphatidylethanol



Catalog Number	MW (g/mol)	Chemical Formula	Solubility
L-60N16	827.44	C <sub>39</sub> H <sub>66</sub> N <sub>5</sub> O <sub>12</sub> P	H <sub>2</sub> O, >1 mg/ml

**Storage:** NBD-Labeled Phosphatidylethanol (NBD-PEth) is stable for at least one year when stored as a solid, protected from moisture, and light at -20 °C. Reconstitute with water or neutral pH, buffered salt solutions, i.e. PBS, TBS, etc. Should be stored in glass containers to prevent material loss due to adsorption to the vessel surface. Storage in basic buffers (pH > 9) will result in slow hydrolysis of the ester chains. Storage in acidic buffers (pH < 4) may cause decomposition. After reconstitution, solutions of NBD-PEth should be flash frozen in liquid nitrogen and stored at -20 °C between uses. NBD-PEth is stable for at least three months when handled in this way. Repeated freeze/thaw cycles do not affect NBD-PEth. Do not store, reconstituted NBD-PEth, at 4°C for more than 2-3 days.

**Field of Interest:** Phosphatidylethanol (PEth) is formed primarily in the liver by transphosphatidylation of phosphatidylcholine (PC) by phospholipase D. PEth is associated with lipoprotein particles VLDL and HDL, transferred between lipoproteins, and PEth-lipoprotein complexes may have a protective effect against atherogenesis by promoting VEGF secretion by SMC and endothelium. Most PEth (about 75%) is incorporated into erythrocyte membranes, and is the longest-lived circulating EtOH metabolite yet identified.

Liisanantti MK, Savolainen MJ (2005) Phosphatidylethanol in high density lipoproteins increases the vascular endothelial growth factor in smooth muscle cells. *Atherosclerosis* 180: 263-269

Varga A, Hansson P, Johnson G, Alling C (2000) Normalization rate and cellular localization of phosphatidylethanol in whole blood from chronic alcoholics. *Clin Chim Acta* 299: 141-150.

**Hazardous Properties and Cautions:** No hazardous or toxic properties are known for this substance. NBD-Labeled Phosphatidylethanol is not listed as a hazardous waste or as a Toxic Chemical subject to release reporting under the Emergency Planning and Community Right-to-Know Act. For solutions containing methanol or other solvents, see MSDS for Phosphoinositides in Solution available on request. NBD-Labeled Phosphatidylethanol is not listed on the Chemical Inventory of the Toxic Substance Control Act, and 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.

**Warranty and Disclaimer:** Echelon warrants the product conforms to the specifications stated herein. In the event of nonconformity, Echelon will replace products or refund purchase price, at its sole option, and Echelon shall not be responsible for any other loss or damage, whether known or foreseeable to Echelon. No other warranties apply, express or implied, including but not limited to warranty of fitness for any purpose or implied warranty of merchantability. Purchaser is solely responsible for all consequences of its use of the product and Echelon assumes no responsibility therefore, including success of purchaser's research and development, or health or safety of any uses of the product.

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