**PRODUCT DATA SHEET**

Phosphatidylethanolamine

- **Catalog No:** 1045
- **Common Name:** PE
- **Source:** natural, chicken egg
- **Solubility:** chloroform
- **CAS No:** 39382-08-6
- **Molecular Formula:** C_{41}H_{78}N_{8}O_{8}P

**Molecular Weight:** 744 (oleoyl)

**Storage:** -20°C

**Purity:** TLC > 98%; identity confirmed by MS

**TLC System:** chloroform/methanol/DI water (65:25:4 by Vol.)

**Appearance:** liquid

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**Application Notes:**
Phosphatidylethanolamine (PE) is frequently the main lipid component of microbial membranes and the second most abundant phospholipid in mammals, comprising as much as 45% of brain lipids. They are concentrated in mitochondria and are key building blocks of membrane bilayers where they are distributed asymmetrically with the majority confined to the inner leaflet. It appears that a primary role for PE, in bacterial membranes at least, is simply to dilute the high negative charge density of the anionic phospholipids. PE acts as a chaperone in transport membrane folding.\(^1\) In animals PE is involved in the secretion of very-low-density lipoproteins and aids in membrane fusion and fission.\(^2\) In plants lyso PE retards senescence by inhibiting phospholipase D. PE is the precursor to many important lipids. PE acts as a protein transport from the membrane to the vacuole. PE is synthesized through the CDP-ethanolamine or the PS decarboxylation pathway. PE can be converted to diacyl glycerol as a second messenger.\(^3\)

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**Selected References:**

This product is to be used for research only. It is not intended for drug or diagnostic use, human consumption or to be used in food or food additives. Matreya assumes no liability for any use of this product by the end user. We believe the information, offered in good faith, is accurate.

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