

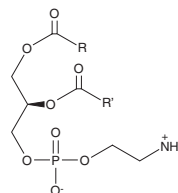
PRODUCT INFORMATION



Phosphatidylethanolamine (bovine heart)

Item No. 45092

CAS Registry No.: 477241-93-3
Synonyms: Cephalin, PE (bovine heart)
FW: 764.0
Purity: ≥95%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

Phosphatidylethanolamine (bovine heart) is supplied as a solid. A stock solution may be made by dissolving the phosphatidylethanolamine (bovine heart) in the solvent of choice, which should be purged with an inert gas. Phosphatidylethanolamine (bovine heart) is slightly soluble (0.1-1 mg/ml) in methanol.

Description

Phosphatidylethanolamine is the most abundant phospholipid in prokaryotes and the second most abundant found in the membrane of mammalian, plant, and yeast cells, comprising approximately 25% of total mammalian phospholipids.¹ In the brain, phosphatidylethanolamine comprises almost half of the total phospholipids. It is also one of the major phospholipid species in heart inner mitochondrial membranes.² Phosphatidylethanolamine is synthesized mainly through the cytidine diphosphate-ethanolamine and phosphatidylserine decarboxylation pathways, which occur in the endoplasmic reticulum (ER) and mitochondrial membranes, respectively.¹ It is a precursor in the synthesis of phosphatidylcholine and arachidonoyl ethanolamide (AEA; Item No. 90050) and is a source of ethanolamine used in various cellular functions. When the phosphatidylethanolamine levels in the mitochondria are reduced, mitochondrial morphology is altered and its function is impaired.³ This product contains phosphatidylethanolamine molecular species with primarily C20:4, C18:0, and C18:2 fatty acyl chains.

References

1. Vance, J.E. and Tasseva, G. Formation and function of phosphatidylserine and phosphatidylethanolamine in mammalian cells. *Biochim. Biophys. Acta* **1831**(3), 543-554 (2013).
2. Comte, J., Mäisterrena, B., and Gautheron, D.C. Lipid composition and protein profiles of outer and inner membranes from pig heart mitochondria. Comparison with microsomes. *Biochim. Biophys. Acta* **419**(2), 271-284 (1976).
3. Vance, J.E. Historical perspective: phosphatidylserine and phosphatidylethanolamine from the 1800s to the present. *J. Lipid. Res.* **59**(6), 923-944 (2018).

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.

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