

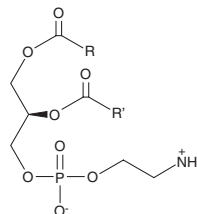
PRODUCT INFORMATION



Phosphatidylethanolamine (*E. coli*)

Item No. 45090

CAS Registry No.: 94581-14-3
Synonyms: Cephalin, PE (*E. coli*)
Purity: $\geq 95\%$ (mixture)
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 (*E. coli*) is supplied as a solid. A stock solution may be made by dissolving the phosphatidylethanolamine (*E. coli*) in the solvent of choice, which should be purged with an inert gas. Phosphatidylethanolamine (*E. coli*) 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 75 and 25% of total phospholipids in *E. coli* and mammals, respectively.^{1,2} In *E. coli*, it is synthesized mainly through the decarboxylation of phosphatidylserine that is formed from cytidine diphosphate-diglycerides and L-serine.³ Phosphatidylethanolamine deficiency in *E. coli* prevents proper assembly of lactose permease, suggesting a role as a lipid chaperone.⁴ This product contains phosphatidylethanolamine molecular species with primarily C18:1, C16:0, and C17:0 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. Raetz, C.R.H. and Dowhan, W. Biosynthesis and function of phospholipids in *Escherichia coli*. *J. Biol. Chem.* **265**(3), 1235-1238 (1990).
3. Kanfer, J.N. and Kennedy, E.P. Metabolism and function of bacterial lipids. *J. Biol. Chem.* **238**, 2919-2922 (1964).
4. Bogdanov, M., Sun, J., Kaback, H.R., *et al.* A phospholipid acts as a chaperone in assembly of a membrane transport protein. *J. Biol. Chem.* **271**(20), 11615-11618 (1996).

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.

WARRANTY AND LIMITATION OF REMEDY

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