

PRODUCT INFORMATION



Lysophosphatidylethanolamine (egg)

Item No. 25844

CAS Registry No.: 97281-40-8

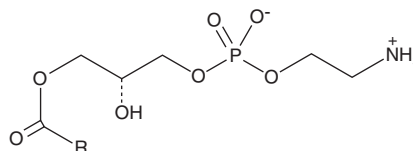
Synonyms: Lyso-PE (egg), LPE (egg),
L- α -lysophosphatidylethanolamine

Purity: $\geq 98\%$

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

Lysophosphatidylethanolamine (LPE) (egg) is supplied as a solid. A stock solution may be made by dissolving the LPE (egg) in the solvent of choice, which should be purged with an inert gas. LPE (egg) is soluble in chloroform.

Description

LPE is a naturally-occurring lysophospholipid that can be generated *via* deacylation of phosphatidylethanolamine by phospholipase A_2 (PLA $_2$).^{1,2} It increases the phosphorylation of ERK1/2 in PC12 cells, an effect that can be blocked by the MEK inhibitors U-0126 (Item No. 70970) and PD 98059 (Item No. 10006726) and the EGFR inhibitor AG-1478 (Item No. 10010244).¹ LPE also increases neurite outgrowth and expression of neurofilament M in PC12 cells. LPE inhibits the activity of phospholipase D (PLD) partially purified from cabbage.³ This product contains lysophosphatidylethanolamine molecular species with variable fatty acyl chain lengths at the *sn*-1 position and a hydroxy group at the *sn*-2 position.

References

1. Nishina, A., Kimura, H., Sekiguchi, A., *et al.* Lysophosphatidylethanolamine in *Grifola frondosa* as a neurotrophic activator *via* activation of MAPK. *J. Lipid Res.* **47(7)**, 1434-1443 (2006).
2. Makide, K., Kitamura, H., Sato, Y., *et al.* Emerging lysophospholipid mediators, lysophosphatidylserine, lysophosphatidylthreonine, lysophosphatidylethanolamine and lysophosphatidylglycerol. *Prostaglandins Other Lipid Mediat.* **89(3-4)**, 135-139 (2009).
3. Ryu, S.B., Karlsson, B.H., Ozgen, M., *et al.* Inhibition of phospholipase D by lysophosphatidylethanolamine, a lipid-derived senescence retardant. *Proc. Natl. Acad. Sci. USA* **94(23)**, 12717-12721 (1997).

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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