Product Data Sheet

Product Name: Phosphatidylethanolamines (soy)
Cat. No.: GC18560

Chemical Properties

Cas. No.	97281-51-1		
SMILES	[R]C(OC[C@@H](OC([R])=O)COP([O-])(OCC[NH3+])=O)=O		
Formula		M.Wt	
Solubility	Chloroform: Soluble	Storage	Store at -20°C
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure			

Background

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. In the brain, phosphatidylethanolamine comprises almost half of the total phospholipids. It is synthesized mainly through the cytidine diphosphate-ethanolamine and phosphatidylserine decarboxylation pathways, which occur in the endoplasmic reticulum (ER) and mitochondrial membranes, respectively. It is a precursor in the synthesis of phosphatidylcholine and arachidonoyl ethanolamide and is a source of ethanolamine used in various cellular functions. In E. coli, phosphatidylethanolamine deficiency prevents proper assembly of lactose permease, suggesting a role as a lipid chaperone. It is a cofactor in the propagation of prions in vitro and can convert recombinant mammalian proteins into infectious molecules even in the absence of RNA. Phosphatidylethanolamines (soy) is a mixture of phosphatidylethanolamines isolated from soy with various fatty acyl groups at the sn-1 and sn-2 positions.

References:
[1]. Vance, J.E., and Tasseva, G. Formation and function of phosphatidylserine and

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phosphatidylethanolamine in mammalian cells Biochim. Biophys. Acta 1831(3), 543-554 (2013).
[2]. 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).
[3]. Deleault, N.R., Piro, J.R., Walsh, D.J., et al. Isolation of phosphatidylethanolamine as a solitary cofactor for prion formation in the absence of nucleic acids Proc. Natl. Acad. Sci. U.S.A. 109(22), 8546-8551 (2012).

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