

Phosphatidylglycerols (egg) (sodium salt)

Cat. No.:	HY-W251428	
CAS No.:	383907-64-0	
Target:	Biochemical Assay Reagents	
Pathway:	Others	Phosphatidylglycerols (egg) (sodium salt)
Storage:	4°C, sealed storage, away from moisture	
	* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)	

SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (ultrasonic and warming and heat to 60°C)
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1.25 mg/mL (Infinity mM); Clear solution

BIOLOGICAL ACTIVITY

Description	<p>Phosphatidylglycerol is a naturally occurring anionic phospholipid that is a component of plant, animal and bacterial cell membranes. It is present in prokaryotes and eukaryotes less than phosphatidylethanolamine, and in eukaryotes less than phosphatidylcholine. It is formed by the reaction between CDP-diglyceride and L-α-glycerol 3-phosphate followed by dephosphorylation and is the metabolic precursor of cardiolipin. Phosphatidylglycerols containing polyunsaturated and monounsaturated fatty acyl chains inhibit and promote the proliferation of murine keratinocytes, respectively. Phosphatidylglycerol is the second-largest lipid component of mammalian lung surfactant, accounting for 10% of lipids, and has reduced levels of pulmonary surfactant in infants with respiratory distress syndrome. Phosphatidylglycerol (egg) is a mixture of phosphatidylglycerols isolated from eggs with various fatty acyl groups at the sn-1 and sn-2 positions.</p> <p>References: [1]. Ohtsuka, T., Nishijima, M., and Akamatsu, Y. Phosphatidylglycerol phosphate synthase-deficient somatic mutants with impaired phosphatidylglycerol and cardiolipin biosynthesis <i>J. Biol. Chemical.</i> 268(30), 22908-22913 (1993).[2]. Furse, S. Are phosphatidylglycerols essential for terrestrial life <i>J. Chemistry. biology.</i> 10(1), 1-9 (2016).[3]. Xie, D., Seremwe, M., Edwards, JG, et al. Different effects of different phosphatidylglycerols on the proliferation of mouse keratinocytes <i>PLoS One</i> 9(9), e107119 (2014).</p>
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REFERENCES

- [1]. Furse S. Is phosphatidylglycerol essential for terrestrial life?[J]. *Journal of chemical biology*, 2017, 10(1): 1-9.
- [2]. Xie D, et al. Distinct effects of different phosphatidylglycerol species on mouse keratinocyte proliferation[J]. *PLoS One*, 2014, 9(9): e107119.

Caution: Product has not been fully validated for medical applications. For research use only.

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