

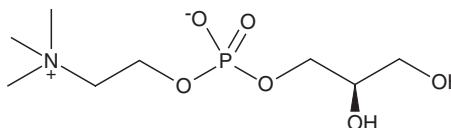
PRODUCT INFORMATION



sn-glycero-3-Phosphocholine

Item No. 20736

CAS Registry No.: 28319-77-9
Formal Name: 2-[[[(2R)-2,3-dihydroxypropoxy]hydroxyphosphinyl]oxy]-N,N,N-trimethyl-ethanaminium, inner salt
Synonyms: Glycerophosphocholine, L- α -GPC, L- α -Glycerylphosphorylcholine, *sn*-glycero-3-PC
MF: C₈H₂₀NO₆P
FW: 257.2
Purity: \geq 95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

sn-glycero-3-Phosphocholine (*sn*-glycero-3-PC) is supplied as a crystalline solid. A stock solution may be made by dissolving the *sn*-glycero-3-PC in the solvent of choice, which should be purged with an inert gas. *sn*-glycero-3-PC is soluble in the organic solvent ethanol. The solubility of *sn*-glycero-3-PC in ethanol is approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of *sn*-glycero-3-PC can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of *sn*-glycero-3-PC in PBS (pH 7.2) is approximately 3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

sn-glycero-3-PC is a nootropic phospholipid, a precursor to choline biosynthesis, and an intermediate in the metabolism of phosphatidylcholine.¹ *In vivo*, *sn*-glycero-3-PC is converted to phosphorylcholine, a metabolically active form of choline that increases acetylcholine synthesis and release in rat hippocampus. It prevents scopolamine-induced amnesia in a passive avoidance test in rats and exerts neuroprotective effects in models of altered cholinergic neurotransmission and models of brain vascular injury.^{1,2}

References

1. Traini, E., Bramanti, V., and Amenta, F. Choline alfoscerate (alpha-glyceryl-phosphoryl-choline) an old choline- containing phospholipid with a still interesting profile as cognition enhancing agent. *Curr. Alzheimer Res.* **10(10)**, 1070-1079 (2013).
2. Sigala, S., Imperato, A., Rizzonelli, P., *et al.* L- α -glycerylphosphorylcholine antagonizes scopolamine-induced amnesia and enhances hippocampal cholinergic transmission in the rat. *Eur. J. Pharmacol.* **211(3)**, 351-358 (1992).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM