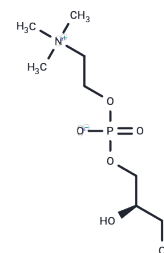


## sn-Glycero-3-phosphocholine

## Chemical Properties

CAS No. :	28319-77-9
Formula:	C <sub>8</sub> H <sub>20</sub> NO <sub>6</sub> P
Molecular Weight:	257.22
Storage:	Keep away from moisture, Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	sn-Glycero-3-phosphocholine (Choline glycerophosphate) is a natural choline compound found in the brain and in milk. It is also a parasympathomimetic acetylcholine precursor which may have a potential for the treatment of Alzheimer's disease and dementia. sn-Glycero-3-phosphocholine rapidly delivers choline to the brain across the blood-brain barrier and is a biosynthetic precursor of the acetylcholine neurotransmitter. It is a non-prescription drug in most countries due to its Generally Recognised As Safe (GRAS) status [1]. Studies have investigated its efficacy for cognitive disorders including stroke and Alzheimer's disease. An Italian multicentre clinical trial on 2, 044 patients suffering from recent stroke were supplied Glycerylphosphorylcholine in doses of 1, 000 mg/day for 28 days and 400 mg three times per day for the five ensuing months. The trial confirmed the therapeutic role of alpha-GPC on the cognitive recovery of patients based on four measurement scales, three of which reached statistical significance [2].
Targets(IC50)	Endogenous Metabolite, Cholinesterase (ChE)

## Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble), H <sub>2</sub> O: 105 mg/mL (408.21 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	3.8877 mL	19.4386 mL	38.8772 mL
5 mM	0.7775 mL	3.8877 mL	7.7754 mL
10 mM	0.3888 mL	1.9439 mL	3.8877 mL
50 mM	0.0778 mL	0.3888 mL	0.7775 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Parnetti L, et al. Cholinergic precursors in the treatment of cognitive impairment of vascular origin: ineffective approaches or need for re-evaluation J Neurol Sci. 2007 Jun 15;257(1-2):264-9.

Qiao K, Han J, Zhang H, et al. Intratumor Mycoplasma promotes the initiation and progression of hepatocellular carcinoma. Cell Reports. 2023, 42(12).

Barbagallo Sangiorgi G, et al. Alpha-Glycerophosphocholine in the mental recovery of cerebral ischemic attacks. An Italian multicenter clinical trial. Ann NY Acad Sci 1994; 717:253-69.

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