

## Phosphorylethanolamine

## Chemical Properties

CAS No. : 1071-23-4

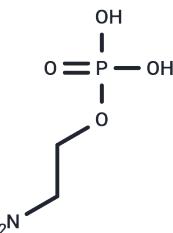
Formula: C2H8NO4P

Molecular Weight: 141.06

Appearance: Solid

Storage: store at low temperature

Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	Phosphorylethanolamine (O-Phosphorylethanolamine) is a phosphomonoester metabolite of the phospholipid metabolism. Phosphorylethanolamine is a precursor of phospholipid synthesis and a product of phospholipid breakdown. Phosphomonoesters are present at much higher levels in the brain than in other organs. In developing the brain, phosphomonoesters are normally elevated during the period of neuritic proliferation. This also coincides with the occurrence of normal programmed cell death and synaptic pruning in developing the brain. These findings are consistent with the role of phosphomonoesters in membrane biosynthesis. Phosphorylethanolamine shows a strong structural similarity to the inhibitory neurotransmitter, GABA, and the GABAB receptor partial agonist, 3-amino-propylphosphonic acid. Phosphorylethanolamine is a phosphomonoester which is decreased in post-mortem Alzheimer's disease (AD) brain.
Targets(IC50)	GABA Receptor, Endogenous Metabolite

## Solubility Information

Solubility	DMSO: Slightly soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	7.0892 mL	35.4459 mL	70.8918 mL
5 mM	1.4178 mL	7.0892 mL	14.1784 mL
10 mM	0.7089 mL	3.5446 mL	7.0892 mL
50 mM	0.1418 mL	0.7089 mL	1.4178 mL

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.

Reference

Klunk W E, et al. Inactivity of phosphoethanolamine, an endogenous GABA analog decreased in Alzheimer's disease, at GABA binding sites[J]. *Life Sciences*, 1995, 56(26):2377.

Klunk W E, et al. Structural determinants of activity at the GABAB receptor. A comparison of phosphoethanolamine and related GABA analogs.[J]. *Mol Chem Neuropathol*, 1995, 26(1):15-30.

Li G, et al. Sphingosine-1-phosphate lyase has a central role in the development of *Dictyostelium discoideum*[J]. *Development*, 2001, 128(18):3473-3483.

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