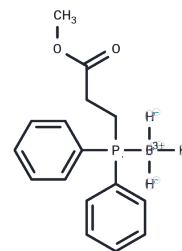


PB2

Chemical Properties

CAS No. : 914940-24-2
 Formula: C₁₆H₂₀BO₂P
 Molecular Weight: 286.12
 Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.



Biological Description

Description	PB2, a tris(2-carboxyethyl)phosphine (TCEP) analogue, enhances the survival of retinal ganglion cells (RGCs) following axotomy in vitro. Even at nanomolar and picomolar concentrations, PB2 demonstrates pronounced efficacy in promoting RGC survival. Notably, PB2 exhibits superior permeability compared to TCEP. Serving as a potent reducing agent, PB2 provides robust neuroprotection for RGCs[1].
Targets(IC50)	Others, Influenza Virus
In vitro	PB2 (0.001~100000 nM; 72 hours; RGCs) increases RGC viability[1]. PB2's modifications neutralize compound polarity, and its methyl esters are likely cleaved by cytosolic esterases, producing a polar intracellular intermediate that is unlikely to cross cell membranes[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (349.5 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween-80+45% Saline: 3.3 mg/mL (11.53 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.495 mL	17.4752 mL	34.9504 mL
5 mM	0.699 mL	3.495 mL	6.9901 mL
10 mM	0.3495 mL	1.7475 mL	3.495 mL
50 mM	0.0699 mL	0.3495 mL	0.699 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.

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

Schlieve CR, et al. Synthesis and characterization of a novel class of reducing agents that are highly neuroprotective for retinal ganglion cells. *Exp Eye Res.* 2006;83(5):1252-1259.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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