Product Data Sheet

Product Name: PB2
Cat. No.: GC63139

Chemical Properties

Cas. No.	914940-24-2		
Formula	$C_{16}H_{20}BO_2P$	M.Wt	286.11
Solubility	DMSO : 100 mg/mL (349.52 mM; Need ultrasonic)	Storage	4°C, stored under nitrogen
General tips	For obtaining a higher solubility , please warm the tube at 37 ℃ and shake it in the ultrasonic bath for a while.Stock solution can be stored below -20℃ for several months.		
Shipping Condition	Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.		
Structure	PB2		

Background

PB2 is a tris(2-carboxyethyl)phosphine (TCEP) analogue increasing retinal ganglion (RGCs) cells survival after axotomy in vitro at nanomolar and picomolar concentrations. PB2 is substantially more permeable than TCEP. PB2, as a reducing agent, is highly neuroprotective for RGCs[1].

PB2 (0.001~100000 nM; 72 hours; RGCs) increases RGC viability[1].PB2 has modifications that neutralize the polarity of the compounds. The methylesters of PB2 is likely to be cleaved by cytosolic esterases, yielding a polar intracellular intermediate that would be unlikely to cross cell membranes[1].

[1]. 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.

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