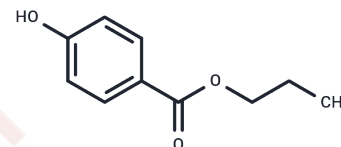


Propylparaben

Chemical Properties

CAS No. :	94-13-3
Formula:	C ₁₀ H ₁₂ O ₃
Molecular Weight:	180.20
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	Propylparaben (Propyl parahydroxybenzoate) is an antimicrobial agent, preservative, and flavoring agent.
Targets(IC50)	Apoptosis,Endogenous Metabolite,Antibacterial
In vitro	Propylparaben(PPB) suppressed the epileptiform activity in registered neurons.?This effect disappeared when PPB was removed from the solution of incubation.?PPB exerts an antiepileptic effect on CA1 pyramidal neurons in vitro.?Therefore, PPB may represent an effective antiepileptic compound[1]. propylparaben disrupts antral follicle growth and steroidogenic function by altering the cell-cycle, apoptosis, and steroidogenesis pathways[1].
Cell Research	Experimental conditions were as follows: a) basal recordings during which artificial cerebrospinal fluid (ACSF) (in mM: NaCl,125; KCl, 3; Na ₂ HPO ₄ , 1.25; NaHCO ₃ , 25; MgCl ₂ , 2; CaCl ₂ , 2-D-(+)-glucose, 10; gassed with a mixture of 95% O ₂ -5% CO ₂) was perfused; b) ACSF plus Propylparaben(PPB) (500 μM); c) 4-AP (100 μM) in Mg ²⁺ -free-ACSF; d) 4-AP in Mg ²⁺ -free-ACSF plus vehicle (dimethyl sulfoxide, DMSO at 0.04%); e) 4-AP in Mg ²⁺ -free-ACSF plus drugs (phenytoin (PHT), 200 μM; PPB, 200 and 7500 μM). Each experimental condition lasted for 10 min. The onset of 4-AP-induced epileptiform activity was considered when bursts of 5 or more consecutive action potentials (APs) were present. The number of APs and excitatory postsynaptic potentials (EPSPs) greater than 1 mV and less than 10 mV of amplitude were quantified during periods of 5 min for each experimental condition[2]

Solubility Information

Solubility	DMSO: 60 mg/mL (332.96 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: 2 mg/mL (11.1 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	5.5494 mL	27.7469 mL	55.4939 mL
5 mM	1.1099 mL	5.5494 mL	11.0988 mL
10 mM	0.5549 mL	2.7747 mL	5.5494 mL
50 mM	0.111 mL	0.5549 mL	1.1099 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

Gal A, Gedye K, Craig ZR, Ziv-Gal A. Propylparaben inhibits mouse cultured antral follicle growth, alters steroidogenesis, and upregulates levels of cell-cycle and apoptosis regulators[J]. *Reprod Toxicol*. 2019 Jul 12;89:100-106.

Lara-Valderrábano, Leonardo, Galván, Emilio J, Rocha L . Propylparaben suppresses epileptiform activity in hippocampal CA1 pyramidal cells, in vitro[J]. *Epilepsy Research*, 2017, 136:126-129.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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