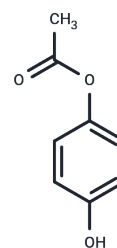


4-hydroxyphenyl acetate

Chemical Properties

CAS No. :	3233-32-7
Formula:	C ₈ H ₈ O ₃
Molecular Weight:	152.15
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	4-Acetoxyphenol Prevents RPE Oxidative Stress-Induced Necrosis by Functioning as an NRF2 Stabilizer
Targets(IC50)	Reductase,Nrf2,Endogenous Metabolite
In vitro	4-AC is a natural antioxidant, which demonstrates strong abilities to protect RPE cells from oxidative stress-induced necrosis. Mechanistically, 4-AC blocked the increase of cellular ROS induced by oxidative stress, and upregulated NQO1 and HO-1 genes by stabilizing and inducing the nuclear translocation of NRF2 transcription factor. The NQO1, HO-1, and NRF2 were further shown to be required for 4-AC protection of RPE cells from death induced by tBHP. The tBHQ, an NRF2 stabilizer, consistently mimicked the protective effect of 4-AC against tBHP-induced RPE death[1].

Solubility Information

Solubility	DMSO: 30 mg/mL (197.17 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 (13.14 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	6.5725 mL	32.8623 mL	65.7246 mL
5 mM	1.3145 mL	6.5725 mL	13.1449 mL
10 mM	0.6572 mL	3.2862 mL	6.5725 mL
50 mM	0.1314 mL	0.6572 mL	1.3145 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

Jakub H , Alexander K , Julia C , et al. 4-Acetoxyphenol Prevents RPE Oxidative Stress-Induced Necrosis by Functioning as an NRF2 Stabilizer[J]. Invest Ophthalmol Vis, 2015, 56(9):5048-5059.

Li T , Berberich J , Sahle-Demessie E , et al. A disposable acetylcholine esterase sensor for As(iii) determination in groundwater matrix based on 4-acetoxyphenol hydrolysis[J]. Analytical Methods, 2019, 11(40):5203-5213.

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