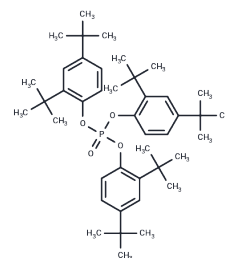


Tris(2,4-di-tert-butylphenyl)phosphate

Chemical Properties

CAS No. :	95906-11-9
Formula:	C42H63O4P
Molecular Weight:	662.92
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	Tris(2,4-di-tert-butylphenyl)phosphate (TDTBPP) isolated from Vitex negundoL inhibits secretory phospholipase A2 (sPLA2). Tris(2,4-di-tert-butylphenyl)phosphate has anti-inflammatory activity.
Targets(IC50)	Phospholipase
In vitro	METHODS: KGN, MA-10 and C18-4 cells were treated with Tris(2,4-di-tert-butylphenyl) phosphate (0.1-100 μ M) for 48 h. Cell counts were assayed by Hoechst 33342 stained. RESULTS: Tris(2,4-di-tert-butylphenyl)phosphate was not cytotoxic to any of the 3 cell lines. [1]
In vivo	METHODS: To assay acute anti-inflammatory activity in vivo, Tris(2,4-di-tert-butylphenyl)phosphate (50-70 mg/kg, 0.1% sodium carboxymethyl cellulose in 1M phosphate buffer pH 7.2) was The carrageenan-induced foot-plantar edema model in rats was administered. RESULTS: Tris(2,4-di-tert-butylphenyl) phosphate at doses of 50 mg/kg and 70 mg/kg exhibited significant anti-inflammatory activity in the carrageenan-induced foot-plantar edema model. tris(2,4-di-tert-butylphenyl) phosphate significantly reduced the volume of raw paw edema. [2]

Solubility Information

Solubility	DMSO: < 1 mg/mL (insoluble or slightly soluble),Sonication is recommended. Ethanol: 100 mg/mL (150.85 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% EtOH+90% Corn Oil: 3.3 mg/mL (4.98 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	1.5085 mL	7.5424 mL	15.0848 mL
5 mM	0.3017 mL	1.5085 mL	3.017 mL
10 mM	0.1508 mL	0.7542 mL	1.5085 mL
50 mM	0.0302 mL	0.1508 mL	0.3017 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

Wang X, et al. The Effects of Organophosphate Esters Used as Flame Retardants and Plasticizers on Granulosa, Leydig, and Spermatogonial Cells Analyzed Using High-Content Imaging. *Toxicol Sci.* 2022 Mar 28;186(2):269-287.

Vinuchakkaravarthy T, et al. Active compound from the leaves of *Vitex negundo* L. shows anti-inflammatory activity with evidence of inhibition for secretory Phospholipase A(2) through molecular docking. *Bioinformation.* 2011;7(4):199-206.

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