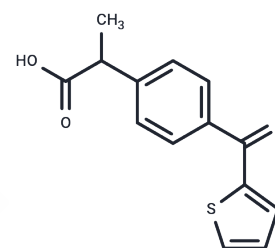


Suprofen

Chemical Properties

CAS No. :	40828-46-4
Formula:	C ₁₄ H ₁₂ O ₃ S
Molecular Weight:	260.31
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	Suprofen (Suprol) is an IBUPROFEN-type anti-inflammatory analgesic and antipyretic. It inhibits prostaglandin synthesis and has been proposed as an anti-arthritis.
Targets(IC50)	COX,PGE Synthase
In vitro	Suprofen inactivates the diclofenac-4-hydroxylase activity of baculovirus-expressed P450 2C9 in a time- and concentration-dependent manner, which is consistent with mechanism-based inactivation. [1] Suprofen is a known generator of singlet oxygen whose participation in the reaction is supported by the effects of quenchers and scavengers. Suprofen photosensitizes the production of alkali-labile cleavage sites in DNA much more efficiently than direct strand breaks. [2] Suprofen sensitizes photo-oxidation of cholesterol, producing 7 alpha- and 7 beta-hydroperoxides but not 5 alpha-hydroperoxide of cholesterol. Suprofen-sensitized photo-oxidation of membrane lipids of liposomes increases leakage of trapped glucose, suggesting photosensitized destabilization of the membrane structure. [3] Suprofen incorporation in the phosphatidylcholine (PC) evaporation vesicles (REV) membrane leads to approximately 5% increase in the encapsulation efficiency (34%) in comparison to standard REV (29%). [4]
In vivo	Suprofen combined with PGF2 alpha blocks induction of uterine contractions, suggesting the possibility that Suprofen also antagonizes PGF2 alpha receptor binding. [5] Suprofen are effective at preventing BAB disruption after paracentesis in dogs, indicating their potential usefulness for treatment of prostaglandin-mediated ocular disease. [6] Suprofen (3.7 mg/kg, i.v.) induces a marked decrease in the firing evoked in arthritic rats by ankle mobilization. [7]

Solubility Information

Solubility	DMSO: 50 mg/mL (192.08 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 (7.68 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</i>

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In vivo Formulation	<i>vary and should be modified based on specific experimental conditions.</i>
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.8416 mL	19.2079 mL	38.4157 mL
5 mM	0.7683 mL	3.8416 mL	7.6831 mL
10 mM	0.3842 mL	1.9208 mL	3.8416 mL
50 mM	0.0768 mL	0.3842 mL	0.7683 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

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Cirli OO, et al. J Control Release, 2004, 96(1), 85-96.

Hahn DW, et al. Prostaglandins, 1982, 23(1), 1-16.

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