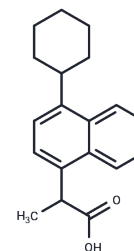


Vedaprofen

Chemical Properties

CAS No. :	71109-09-6
Formula:	C ₁₉ H ₂₂ O ₂
Molecular Weight:	282.38
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	Vedaprofen (PM 150) inhibits COX-1 and reduces prostaglandin H2 synthesis with anti-inflammatory activities. Vedaprofen is an inhibitor of Escherichia coli sliding clamp with the IC50 of 222 μM and Ki of 131 μM.
Targets(IC50)	Antibacterial,COX,Prostaglandin Receptor
In vitro	Vedaprofen blocks the activity of the E. coli DNA polymerase III β subunit, preventing DNA replication and repair[1]. Vedaprofen inhibits horse serum TxB2 and horse exudate PGE2 with IC50s of 9 ng/mL and 630 ng/mL, respectively[3].
In vivo	In beagle dogs, the absorption of Vedaprofen (0.5 mg/kg; oral) was rapid (tmax 0.63 h) and almost complete (bioavailability 86%). The terminal half-lives after intravenous and oral administration, 16.8 and 12.7 h respectively, were of the same order of magnitude. Vedaprofen does not accumulate in plasma[2].

Solubility Information

Solubility	Ethanol: 10 mg/mL (35.41 mM),Sonication is recommended. DMF: 25 mg/mL (88.53 mM),Sonication is recommended. DMSO: 50 mg/mL (177.07 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 (7.08 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	3.5413 mL	17.7066 mL	35.4133 mL
5 mM	0.7083 mL	3.5413 mL	7.0827 mL
10 mM	0.3541 mL	1.7707 mL	3.5413 mL
50 mM	0.0708 mL	0.3541 mL	0.7083 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

Zhou Yin, et al. DNA replication is the target for the antibacterial effects of nonsteroidal anti-inflammatory drugs. *Chem Biol.* 2014 Apr 24;21(4):481-487.

M Hoeijmakers, et al. The pharmacokinetics of Vedaprofen and its enantiomers in dogs after single and multiple dosing. *J Vet Pharmacol Ther.* 2005 Jun;28(3):305-12.

P Lees, et al. PK-PD integration and PK-PD modelling of nonsteroidal anti-inflammatory drugs: principles and applications in veterinary pharmacology. *J Vet Pharmacol Ther.* 2004 Dec;27(6):491-502.

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