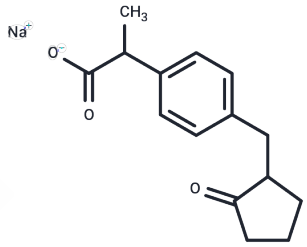
Data Sheet (Cat.No.T0463L)

TargetMol

Loxoprofen sodium

Chemical Properties



CAS No. : 80382-23-6

Formula: C15H17NaO3

Molecular Weight: 268.2834

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	Loxoprofen sodium (CS-600) is an effective and oral sodium inhibitor of COX-1 and COX-2 with IC50 of 6.5 and 13.5 μM, respectively. Loxoprofen sodium works by reducing the synthesis of prostaglandins from arachidonic acid. Loxoprofen sodium has anti-inflammatory and antitumor activity and can be used to treat atherosclerosis.
Targets(IC50)	COX
In vitro	'Loxoprofen sodium, an anti-inflammatory prodrug, is a nonselective COX inhibitor with IC50s of 6.5 and 13.5μM for COX-1 and COX-2 in human whole blood assays, respectively.[1] Loxoprofen sodium is a non-selective cyclooxygenase inhibitor that is widely used for the research of pain and inflammation caused by chronic and transitory conditions. In addition, LOX sodium can also be converted into an inactive hydroxylated metabolite (OH-LOXs) by cytochrome P450 (CYP).[2]'
In vivo	"Loxoprofen reduces acetic acid-induced writhing in mice and carrageenan-induced paw edema and LPS-induced fever in rats (ED30s = 20.1, 0.7, and 2.79 mg/kg, respectively).[3] Loxoprofen sodium (4 mg/kg/day; p.o.; 1 or 8 weeks) reduces atherosclerosis in mice by reducing inflammation[4]. Loxoprofen sodium (60 μg/mL; p.o.; 24 days) suppresses mouse tumor growth by inhibiting VEGF[5]."

Solubility Information

Solubility	DMSO: 13 mg/mL (48.46 mM),Sonication is recommended. H2O: 250 mg/mL (931.85 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: 1 mg/mL (3.73 mM),Sonication is recommended. *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.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7274 mL	18.6372 mL	37.2745 mL
5 mM	0.7455 mL	3.7274 mL	7.4549 mL
10 mM	0.3727 mL	1.8637 mL	3.7274 mL
50 mM	0.0745 mL	0.3727 mL	0.7455 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

Riendeau D, et al. Evaluation of loxoprofen and its alcohol metabolites for potency and selectivity of inhibition of cyclooxygenase-2. Bioorg Med Chem Lett. 2004;14(5):1201-1203.
Paudel S, et al. Assessing Drug Interaction and Pharmacokinetics of Loxoprofen in Mice Treated with CYP3A Modulators. Pharmaceutics. 2019;11(9):479. Published 2019 Sep 16.
Futaki N, et al. NS-398, a novel non-steroidal anti-inflammatory drug with potent analgesic and antipyretic effects, which causes minimal stomach lesions. Gen Pharmacol. 1993;24(1):105-110.
Hamaguchi M, et al. Loxoprofen Sodium, a Non-Selective NSAID, Reduces Atherosclerosis in Mice by Reducing Inflammation. J Clin Biochem Nutr. 2010;47(2):138-147.
Kanda A, et al. Loxoprofen sodium suppresses mouse tumor growth by inhibiting vascular endothelial growth factor. Acta Oncol. 2003;42(1):62-70.