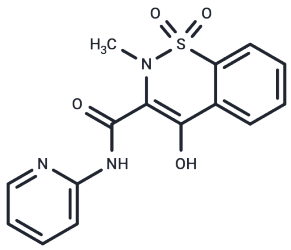
Data Sheet (Cat.No.T0758)

TargetMol

Piroxicam

Chemical Properties



CAS No. : 36322-90-4

Formula: C15H13N3O4S

Molecular Weight: 331.35

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	Piroxicam (CP-16171) is a non-specific COX inhibitor.
Targets(IC50)	COX
In vitro	Piroxicam induces activation of extracellular signal-regulated kinase (ERK) in neurones and phosphorylation of heavy molecular weight neurofilaments, cytoskeletal substrates of ERK in rat spinal cord cultures. Piroxicam and NS-398 protect neurones against hypoxia/reperfusion in rat spinal cord cultures. [1]
In vivo	Piroxicam at doses higher than 0.04%, strongly inhibits the development of GST-P-positive and neoplastic nodules as well as fibrosis, cirrhosis and formation of 8-hydroxydeoxyguanosine (8-OHdG) adducts in rats. [2] Piroxicam increases the expression of all three MHC antigens compared to either control or azoxymethane (AOM) -treated rats. Piroxicam up-regulates colonic MHC antigen expression in the AOM model of colonic carcinogenesis. [3] Piroxicam combined with Cisplatin has antitumor activity against oral malignant melanoma (OMM) and oral squamous cell carcinoma (SCC) in rats. [4] Piroxicam inhibits prostaglandin synthesis through cyclooxygenase blockade in dog, and Piroxicam does not have any direct cytotoxic effects in vitro. [5] Piroxicam also binds strongly to plasma proteins and Piroxicam could stop Ochratoxin A (OTA) -binding and transport into target organs, thereby preventing its nephrotoxicity in rats. Piroxicam prevents the enzymuria induced by OTA and increases renal elimination of OTA in rats. [6]

Solubility Information

Solubility	Ethanol: 1 mg/mL (3.02 mM),Sonication is recommended. DMSO: 50 mg/mL (150.9 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: < 5 mg/mL (15.09 mM),Lower concentrations may be soluble, but exact solubility limit is unknown. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 5 mg/mL (15.09 mM),Solution. *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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.018 mL	15.0898 mL	30.1796 mL
5 mM	0.6036 mL	3.018 mL	6.0359 mL
10 mM	0.3018 mL	1.509 mL	3.018 mL
50 mM	0.0604 mL	0.3018 mL	0.6036 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

Vartiainen N, et al. J Neurochem,2001, 76(2), 480-489.
Denda A, et al. Carcinogenesis,1997, 18(10), 1921-1930.
Rigas B, et al. Immunology,1994, 83(2), 319-323.
Boria PA, et al. J Am Vet Med Assoc,2004, 224(3), 388-394.
Schmidt BR, et al. J Am Vet Med Assoc,2001, 218(11), 1783-1786.
Silva J, et al. Synergistic Effect of Carboplatin and Piroxicam on Two Bladder Cancer Cell Lines. Anticancer Res. 2017 Apr;37(4):1737-1745.