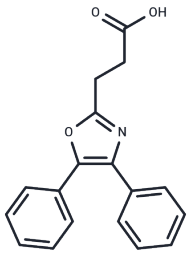
Data Sheet (Cat.No.T0708)

TargetMol

Oxaprozin

Chemical Properties



CAS No. : 21256-18-8

Formula: C18H15NO3

Molecular Weight: 293.32

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Biological Description

Description	Oxaprozin (Oxaprozinum) is a Nonsteroidal Anti-inflammatory Drug. The mechanism of action of oxaprozin is as a Cyclooxygenase Inhibitor. The chemical classification of oxaprozin is Nonsteroidal Anti-inflammatory Compounds.
Targets(IC50)	NF-κB,COX
In vivo	The anti-inflammatory effect of Oxaprozin is thought to be due to its inhibition of cyclooxygenases in platelets that block prostaglandin synthesis. This may be due to Oxaprozin's antipyretic effect on the hypothalamus, leading to an increase in peripheral blood flow, vasodilation, and subsequent heat dissipation.Oxaprozin has a lower selectivity for COX-2, implying a higher selectivity for COX-1.
Kinase Assay	9L cells are treated with drug for the times indicated in each experiment. Floating and attached cells are collected, pooled, resuspended in lysis buffer (10 mM HEPES buffer, pH 7.4, containing 2 mM EDTA, 0.1% CHAPS detergent, 5 mM DTT, 350 ng/mL phenylmethylsulfonyl fluoride, 10 ng/mL pepstatin A, 10 ng/mL aprotinin, and 20 ng/mL leupeptin) and lysed by three freeze-thaw cycles (alternating between a dry ice isopropanol bath and a 37°C water bath). Lysates are spun in a bench top centrifuge at full speed for 15 min and the supernatant (cell extract) fraction transferred to a new tube. Cell extracts (20 µL) are assayed for caspase 9, caspase 8, and caspase 3 activity by incubation at 37°C for either 1 h (caspase 3) or 3 h (caspase 9 and caspase 8) in 500 µL of reaction buffer (10 mM HEPES, pH 7.4, 2 mM EDTA, 0.1% CHAPS, and 5 mM DTT) containing 50 µM caspase form-selective substrate: Ac-LETD-AFC for caspase 8; Ac-LEHD-AFC for caspase 9; and Ac-DEVD-AMC for caspase 3. Background activity is determined for each sample as follows. Cell extracts are preincubated for 15 min at room temperature, with or without caspase form-selective inhibitor: 1 µM z-LETD-FMK for caspase 8, 1 µM z-LEHD-FMK for caspase 9, and 5 µL of Casputin for caspase 3. Caspase activity measured in the absence of inhibitor is divided by the background caspase activity measured in the presence of inhibitor. A value of 1 is subtracted from each measured activity, such that a caspase activity of 0 corresponds to no increase in the specific caspase activity with drug treatment. Fluorescence of the caspase product (excitation at 395 nm and emission at 525 nm for AFC substrates, and excitation at 380 nm and emission at 460 nm for the AMC substrate) is measured using a Shimadzu model RF-1501 spectrofluorophotometer and the manufacturer's PC-1501 software package.

Solubility Information

Solubility	Ethanol: 26 mg/mL (88.64 mM),Sonication is recommended. DMSO: 55 mg/mL (187.51 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.4092 mL	17.0462 mL	34.0925 mL
5 mM	0.6818 mL	3.4092 mL	6.8185 mL
10 mM	0.3409 mL	1.7046 mL	3.4092 mL
50 mM	0.0682 mL	0.3409 mL	0.6818 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.

Reference

Kean WF, et al. Curr Med Res Opin, 2004, 20(8), 1275-1277.