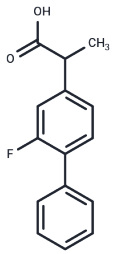
Data Sheet (Cat.No.T0291)

TargetMol

Flurbiprofen

Chemical Properties



CAS No. : 5104-49-4

Formula: C15H13FO2

Molecular Weight: 244.2609

Appearance: no data available

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

Biological Description

Description	Flurbiprofen (dl-Flurbiprofen) is an anti-inflammatory analgesic and antipyretic of the phenylalkynoic acid series. It has been shown to reduce bone resorption in periodontal disease by inhibiting CARBONIC ANHYDRASE.
Targets(IC50)	Apoptosis,COX,MRP
In vitro	Flurbiprofen effectively inhibits the growth of various tumor cells in a dose-dependent manner and causes a noticeable change in the progression of cells through cell cycle stages in tumor cell lines derived from medulloblastoma and glioblastoma multiforme. Flurbiprofen reduces the number of cells in G1 and G2, and significantly increases their numbers in S phase, suggesting that, Flurbiprofen accelerates G1/S entry, and/or delays cell exit from S to G2/M stages. Flurbiprofen causes a minor change in the RNA level of different cyclins, there is a significant decrease in the level of cyclin B protein upon flurbiprofen treatment. [1]
In vivo	Flurbiprofen affords significant neuroprotection from ischemic injury as evidenced by reduction in cerebral infarct volume and neurobehavioral deficit. Flurbiprofen significantly reduces an early calcium dependent rise in levels of nitrite and MDA in ischemic brain regions of rats. Flurbiprofen also reduces the proteolytic products (SBDPs) caused by ischemic activation of calcium dependent protease calpain. [2] Flurbiprofen (5 mg/kg and 10 mg/kg) significantly attenuates brain ischemia/reperfusion injury in rats, as shown by a reduction in the infarct volume, neurological deficit scores and cell apoptosis. Flurbiprofen not only inhibits the expression of Bax protein and p-GSK-3β, but also increases the expression of Bcl-2 protein, the ratio of Bcl-2/Bax as well as the P-Akt level in rats. [3]

Solubility Information

Solubility	Ethanol: 12.2 mg/mL (49.95 mM),Sonication is recommended. DMSO: 50 mg/mL (204.7 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.094 mL	20.470 mL	40.940 mL
5 mM	0.8188 mL	4.094 mL	8.188 mL
10 mM	0.4094 mL	2.047 mL	4.094 mL
50 mM	0.0819 mL	0.4094 mL	0.8188 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

King JG Jr, et al. Oncogene,2001, 20(47), 6864-6870.
Mishra V, et al. Neuropharmacology,2010, 59(7-8), 582-588.
Sun B, et al. Biochem Biophys Res Commun,2011, 409(4), 808-813.

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