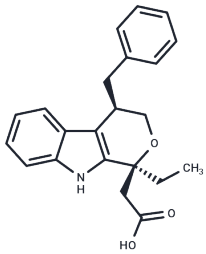
Data Sheet (Cat.No.T68126)

TargetMol

Pemedolac

Chemical Properties



CAS No. : 114716-16-4

Formula: C22H23NO3

Molecular Weight: 349.42

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	Pemedolac (Dexpemedolac) is a small molecule COX inhibitor used to treat neurological disorders, skin and musculoskeletal disorders.
Targets(IC50)	COX
In vivo	Pemedolac exhibited potent analgesic effects against chemically induced pain in rats and mice and against inflammatory pain in rats. In each of the animal models used the analgesic potency of pemedolac was defined by an ED50 of 2.0 mg/kg p.o. or less. Significant analgesic activity was detected in rats at 16 hr after administration of 1 mg/kg p.o. (paw pressure test) and at 10 hr after administration of 10 mg/kg p.o. to mice (p-phenylbenzoquinone writhing). Inasmuch as pemedolac was inactive in the hot plate and tail-flick tests; and its analgesic activity was not antagonized by naloxone (1 mg/kg s.c.), and tolerance did not develop upon multiple administrations; this drug does not exert its analgesic effects through an opiate mechanism. Pemedolac differed from standard nonsteroidal anti-inflammatory drugs (NSAIDs) in that the doses that produced analgesia were much lower than those required for either anti-inflammatory or gastric irritant effects. In acute anti-inflammatory tests, pemedolac exhibited only weak activity as evidenced by an ED50 of approximately 100 mg/kg p.o. in the carrageenan paw edema procedure. This demonstrates for pemedolac a separation of at least 50-fold between the acute analgesic and anti-inflammatory activities, which was greater than that observed with reference NSAIDs.[1]

Solubility Information

Solubility	DMSO: 50 mg/mL (143.09 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.8619 mL	14.3094 mL	28.6189 mL
5 mM	0.5724 mL	2.8619 mL	5.7238 mL
10 mM	0.2862 mL	1.4309 mL	2.8619 mL
50 mM	0.0572 mL	0.2862 mL	0.5724 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

Chau TT, et al. Pemedolac: a novel and long-acting non-narcotic analgesic. J Pharmacol Exp Ther. 1989;248(3): 907-915.