Enflicoxib

Cat. No.: HY-19384

CAS No.: 251442-94-1

Molecular Formula: $C_{16}H_{12}F_5N_3O_2S$

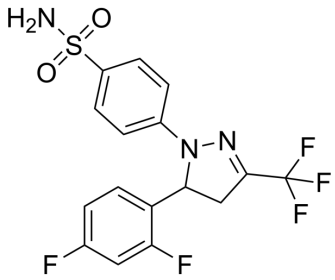
Molecular Weight: 405.34

Target: COX

Pathway: Immunology/Inflammation

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (246.71 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	2.4671 mL	12.3353 mL	24.6706 mL
	5 mM	0.4934 mL	2.4671 mL	4.9341 mL
	10 mM	0.2467 mL	1.2335 mL	2.4671 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

Enflicoxib (E 6087) is a nonsteroidal anti-inflammatory compound that selectively inhibits cyclooxygenase-2 (COX-2). Enflicoxib does not inhibit cyclooxygenase-1 (COX-1). E-6087 shows anti-inflammatory, analgesic and antipyretic activities in animal models[1].

IC_{50} & Target

COX-2

In Vivo

E-6132, one of Enflicoxib (E-6087) metabolites, also inhibits COX-2. After single oral administration of 5 mg/kg of E-6087 to rats, plasma concentrations of Enflicoxib at peak time are higher than those of E-6132, suggesting that activity is mainly due to Enflicoxib[1].

Enflicoxib (E-6087) is characterized by a long elimination half-life (20-35 h), a low plasma clearance (0.10-0.22 L/h/kg) and a relatively large volume of distribution (2-6 L/kg) in rats and dogs after single oral and intravenous doses. Enflicoxib and E-6132 (a pharmacologically active metabolite) show different pharmacokinetics. The higher percentage of Enflicoxib at early times suggests that Enflicoxib is the main compound responsible for in vivo activity, although E-6132 would contribute to the activity at later times[2].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Male and female Wistar rats (250 g)[1]
Dosage:	5 mg/kg
Administration:	Administered by gastric gavage (10 mL/kg); a single oral dose
Result:	Plasma concentrations of E-6087 at peak time are higher than those of E-6132.

REFERENCES

[1]. Carlos Pérez-Maseda, et al. Determination of enantiomeric purity of a novel COX-2 anti-inflammatory drug by capillary electrophoresis using single and dual cyclodextrin systems. Electrophoresis. 2003 May;24(9):1416-21.

[2]. R F Reinoso, et al. Pharmacokinetics of E-6087, a new anti-inflammatory agent, in rats and dogs. Biopharm Drug Dispos. 2001 Sep;22(6):231-42.

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