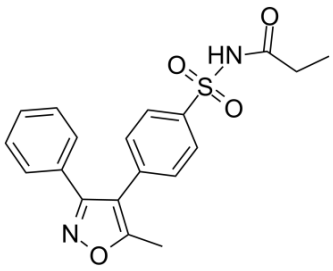
Parecoxib

Cat. No.:	HY-17474
CAS No.:	198470-84-7
Molecular Formula:	$C_{19}H_{18}N_2O_4S$
Molecular Weight:	370.42
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 : ≥ 50 mg/mL (134.98 mM)

* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	2.6996 mL	13.4982 mL	26.9964 mL
	5 mM	0.5399 mL	2.6996 mL	5.3993 mL
	10 mM	0.2700 mL	1.3498 mL	2.6996 mL

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

In Vivo

1. Add each solvent one by one: **10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline**
   Solubility: ≥ 2.5 mg/mL (6.75 mM); Clear solution
2. Add each solvent one by one: **10% DMSO >> 90% corn oil**
   Solubility: ≥ 2.5 mg/mL (6.75 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Parecoxib is a potent and selective COX-2 inhibitor.IC50 value:Target: COX-2in vitro: The prodrug Parecoxib as well as its active metabolite val have a specific affinity to the cannabinoid (CB) receptor measured in CB1-expressing HEK 293 cells and rat brain tissue [1].in vivo: Adult male Sprague-Dawley rats were administered parecoxib (10 or 30 mg kg(-1), IP) or isotonic saline twice a day starting 24 h after middle cerebral artery occlusion (MCAO) for three consecutive days [2]. The selective COX-2 inhibitor parecoxib was delivered 20 min before or 20 min after the incision by intraperitoneal injection. Pretreatment with parecoxib markedly attenuated the pain hypersensitivity induced by incision [3].

IC_{50} & Target	COX-2

CUSTOMER VALIDATION

- **J Pharm Biomed Anal**. 2018 May 22;158:1-7.

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REFERENCES

[1]. Ye Z, et al. Delayed administration of parecoxib, a specific COX-2 inhibitor, attenuated postischemic neuronal apoptosis by phosphorylation Akt and GSK-3β. Neurochem Res. 2012 Feb;37(2):321-9.

[2]. Schr?der H, et al. Parecoxib and its metabolite valdecoxib directly interact with cannabinoid binding sites in CB1-expressing HEK 293 cells and rat brain tissue. Neurochem Int. 2011 Jan;58(1):9-13.

[3]. Guo YJ, et al. Analgesic effects of the COX-2 inhibitor parecoxib on surgical pain through suppression of spinal ERK signaling. Exp Ther Med. 2013 Jul;6(1):275-279.

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