

Product Data Sheet

Product Name: Lornoxicam

Cat. No.: GC13572

Chemical Properties

Cas. No. 70374-39-9

Chemical Name 6-chloro-4-hydroxy-2-methyl-1,1-dioxo-N-pyridin-2-ylthieno[2,3-e]thiazine-3-carboxamide

SMILES CN1C(=C(C2=C(S1(=O)=O)C=C(S2)Cl)O)C(=O)NC3=CC=CC=N3

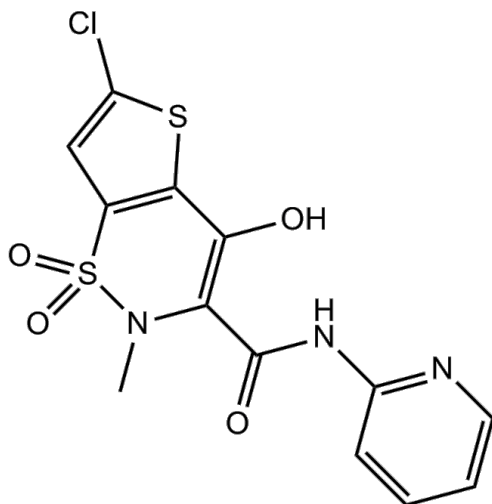
Formula $C_{13}H_{10}ClN_3O_4S_2$ M.Wt 371.82

Solubility $\geq 18.591\text{mg/mL}$ in DMSO with gentle warming Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Background

IC50: A potent COX-1 and COX-2 inhibitor with IC50 values of 5 nM and 8 nM, respectively.

Lornoxicam, a new nonsteroidal anti-inflammatory drug (NSAID) belonging to the oxicam class. By intensively inhibit COX-1 and COX-2, this drug, both in oral and parenteral formulations, shows remarkable analgesic, anti-inflammatory and antipyretic properties. [1]

In vitro: Studies on intact human cells showed that lornoxicam intensively inhibit COX-1 and COX-2 with the lowest IC50 among a large panel of NSAIDs tested. Similar findings were obtained in the whole blood for COX-1/-2. In addition lornoxicam suppressed NO formation in a dose-dependently manner with an IC50 of 65 μ M. [2]

In vivo: In vivo studies found that Lornoxicam was as effective as comparative NSAIDs and that 8 mg Lornoxicam was more effective than 10 mg morphine as a pain-reliever after oral surgery. Orally administration of lornoxicam at 16-24 mg daily was more effective than tramadol at 300 mg daily in pain-alleviating after knee surgery. Compared to naproxen, Lornoxicam showed higher therapeutic potency and lower gastrointestinal toxicity. This was probably due to the short half-life of lornoxicam as compared to the other oxicams. [3]

Clinical trials: A clinical study was performed to assess the efficacy and tolerability of intravenous lornoxicam in Indian patients with postoperative pain or other acute painful traumatic conditions. Patients were treated for 3 days with intravenous lornoxicam at a dosage of 8 mg twice or three times daily. Study demonstrated that intravenous lornoxicam is a powerful NSAID with an optimal efficacy/toxicity ratio and thus could be a reasonable therapeutic option for patients with painful traumatic conditions requiring parenteral NSAIDs. [4]

References:

- [1]Balfour JA, Fitton A and Barradell LB. Lornoxicam, a review of its pharmacology and therapeutic potential in the management of painful and inflammatory conditions. *Drugs*. 1996 Apr; 51(4): 639-57.
- [2]Berg J, Fellier H, Christoph T, Grarup J and Stimmeder D. The analgesic NSAID lornoxicam inhibits cyclooxygenase (COX)-1/-2, inducible nitric oxide synthase (iNOS), and the formation of interleukin (IL)-6 in vitro. *Inflamm Res*. 1999 Jul; 48(7): 369-79.
- [3]Radhofer-Welte S and Rabasseda X. Lornoxicam, a new potent NSAID with an improved tolerability profile. *Drugs Today (Barc)*. 2000 Jan; 36(1): 55-76.
- [4]Sharma A, Pingle A, and Baliga VP. Lornoxicam efficacy in acute pain (LEAP) trial. *J Indian Med*

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