Product Data Sheet

Chemical Properties

**Product Name:** Lornoxicam

**Cas No.:** 70374-39-9

**M.Wt:** 371.82

**Formula:** C13H10ClN3O4S2

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

**Canonical SMILES:** CN1(C(C2=C(S1(=O)=O)C=C(S2)Cl)O)(=O)NC3=CC=CC=N3

**Solubility:** ≥18.591mg/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.

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

Biological Activity

**Targets:** Neuroscience

**Pathways:** COX

**Description:**

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 μM. [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]

Reference:

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.