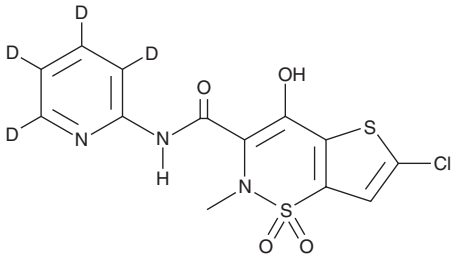
PRODUCT INFORMATION

Lornoxicam-d_4

Item No. 33275

CAS Registry No.: 1216527-48-8
Formal Name: 6-chloro-4-hydroxy-2-methyl-N-2-pyridinyl-d_4-2H-thieno[2,3-e]-1,2-thiazine-3-carboxamide-1,1-dioxide
Synonyms: Chlortenoxicam-d_4, Ro 13-9297-d_4
MF: $C_{13}H_6ClD_4N_3O_4S_2$
FW: 375.8
Chemical Purity: ≥98% (Lornoxicam)
Deuterium Incorporation: ≥99% deuterated forms (d_1-d_4); ≤1% d_0
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Lornoxicam-d_4 is intended for use as an internal standard for the quantification of lornoxicam (Item No. 70220) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated *versus* unlabeled).

Lornoxicam-d_4 is supplied as a solid. A stock solution may be made by dissolving the lornoxicam-d_4 in the solvent of choice, which should be purged with an inert gas. Lornoxicam-d_4 is soluble in the organic solvent DMSO at a concentration of approximately 2 mg/ml.

Description

Lornoxicam is a COX inhibitor and non-steroidal anti-inflammatory drug (NSAID) with anti-inflammatory and analgesic properties.[1] It inhibits production of thromboxane B_2 (TXB_2; Item No. 19030) from arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in HEL human erythroleukemic cells (IC_{50} = 3 nM), which endogenously express COX-1, as well as inhibits LPS-induced formation of prostaglandin $F_{1\alpha}$ ($PGF_{1\alpha}$; Item No. 15010) from arachidonic acid in Mono-Mac-6 cells (IC_{50} = 8 nM), which endogenously express COX-2. Lornoxicam reduces LPS-induced production of nitric oxide and IL-6 in cell-based assays with IC_{50} values of 65 and 54 µM, respectively. It reduces carrageenan-induced paw edema in rats when administered intravenously at doses ranging from 0.1 to 9 mg/kg.[2] Formulations containing lornoxicam have been used in the management of postoperative pain.

References

1. Berg, J., Fellier, H., Christoph, T., *et al.* 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.* **48(7)**, 369-379 (1999).
2. Buritova, J. and Besson, J.M. Potent anti-inflammatory/analgesic effects of lornoxicam in comparison to other nsaids: A c-Fos study in the rat. *Inflammopharmacology* **5(4)**, 331-341 (1997).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM