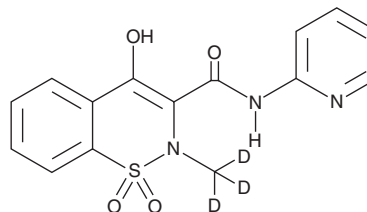


PRODUCT INFORMATION



Piroxicam-d₃ Item No. 33248

CAS Registry No.: 942047-64-5
Formal Name: 1,1-dioxide-4-hydroxy-2-(methyl-d₃)-N-2-pyridinyl-2H-1,2-benzothiazine-3-carboxamide
MF: C₁₅H₁₀D₃N₃O₄S
FW: 334.4
Chemical Purity: ≥98% (Piroxicam)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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

Piroxicam-d₃ is intended for use as an internal standard for the quantification of piroxicam (Item No. 13368) 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).

Piroxicam-d₃ is supplied as a solid. A stock solution may be made by dissolving the piroxicam-d₃ in the solvent of choice, which should be purged with an inert gas. Piroxicam-d₃ is soluble in organic solvents such as methanol.

Description

Piroxicam is a COX inhibitor and non-steroidal anti-inflammatory drug (NSAID) with anti-inflammatory and analgesic properties.^{1,2} It inhibits production of thromboxane B₂ (TXB₂; Item No. 19030) from arachidonic acid (Item Nos. 90010 | 90010.1 | 10006607) in HEL human erythroleukemic cells (IC₅₀ = 0.45 μM), which endogenously express COX-1, as well as inhibits LPS-induced formation of prostaglandin F_{1α} (PGF_{1α}; Item No. 15010) from arachidonic acid in Mono-Mac-6 cells (IC₅₀ = 0.77 μM), which endogenously express COX-2.² Lornoxicam reduces LPS-induced production of nitric oxide and IL-6 in cell-based assays with IC₅₀ values of 240 and ~470 μM, respectively. It reduces carrageenan-induced paw edema in rats when administered at doses of 1, 2.5, and 5 mg/kg.³ Formulations containing piroxicam have been used in the treatment of pain and inflammation associated with osteoarthritis and rheumatoid arthritis.

References

1. Pairet, M., van Ryn, J., Schierok, H., *et al.* Differential inhibition of cyclooxygenases-1 and -2 by meloxicam and its 4'-isomer. *Inflamm. Res.* **47(6)**, 270-276 (1998).
2. 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).
3. Buritova, J., Honore, P., Chapman, V., *et al.* Carrageenan oedema and spinal Fos-LI neurones are reduced by piroxicam in the rat. *Neuroreport* **6(10)**, 1385-1388 (1995).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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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