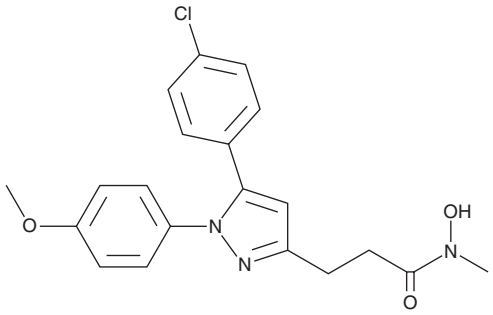
PRODUCT INFORMATION

Tepoxalin

Item No. 34849

CAS Registry No.:	103475-41-8
Formal Name:	5-(4-chlorophenyl)-N-hydroxy-1-(4-methoxyphenyl)-N-methyl-1H-pyrazole-3-propanamide
Synonyms:	ORF 20485, RWJ 20485
MF:	$C_{20}H_{20}ClN_3O_3$
FW:	385.8
Purity:	≥98%
UV/Vis.:	λ_{max}: 237, 256 nm
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

Tepoxalin is supplied as a solid. A stock solution may be made by dissolving the tepoxalin in the solvent of choice, which should be purged with an inert gas. Tepoxalin is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of tepoxalin in ethanol is approximately 15 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Description

Tepoxalin is a dual inhibitor of COX and 5-lipoxygenase (5-LO; IC_{50}s = 2.84 and 0.15 µM, respectively, in RBL-1 cell lysates).[1] It also inhibits the activity of 12-, but not 15-, LO (IC_{50}s = 4.45 and 146.6 µM for the human platelet and rabbit reticulocyte enzymes, respectively). Tepoxalin reduces the production of thromboxane B_2 (TXB_2; Item No. 19030) and leukotriene B_4 (LTB_4; Item No. 20110) induced by the calcium ionophore A23187 (Item Nos. 11016 | 22030) in human peripheral blood mononuclear cells (PBMCs; IC_{50}s = 0.01 and 0.07 µM, respectively) and decreases epinephrine-induced platelet aggregation in human platelet-rich plasma (PRP; IC_{50} = 0.045 µM). It inhibits paw swelling in a rat model of adjuvant-induced arthritis with an ED_{50} value of 3.5 mg/kg.

Reference

1. Argentieri, D.C., Ritchie, D.M., Ferro, M.P., *et al*. Tepoxalin: A dual cyclooxygenase/5-lipoxygenase inhibitor of arachidonic acid metabolism with potent anti-inflammatory activity and a favorable gastrointestinal profile. *J. Pharmacol. Exp. Ther.* **271(3)**, 1399-1408 (1994).

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