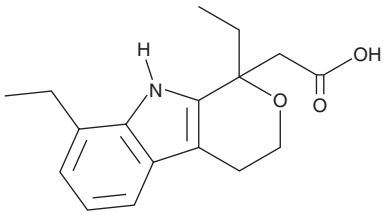
PRODUCT INFORMATION

Etodolac

Item No. 20833

CAS Registry No.:	41340-25-4
Formal Name:	1,8-diethyl-1,3,4,9-tetrahydro-pyrano[3,4-b]indole-1-acetic acid
Synonyms:	AY 24236, (±)-Etodolac, NIH 9918, NSC 282126
MF:	$C_{17}H_{21}NO_3$
FW:	287.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 224, 273 nm
Supplied as:	A crystalline solid
Storage:	Room temperature
Stability:	≥4 years



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

Laboratory Procedures

Etodolac is supplied as a crystalline solid. A stock solution may be made by dissolving the etodolac in the solvent of choice, which should be purged with an inert gas. Etodolac is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of etodolac in ethanol is approximately 20 mg/ml and approximately 30 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of etodolac can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of etodolac in PBS (pH 7.2) is approximately 0.25 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Etodolac is a non-steroidal anti-inflammatory drug (NSAID) that inhibits both COX isoforms *in vitro*, with modest selectivity for COX-2 (IC_{50}s = 12 µM for COX-1 and 2.2 µM for COX-2 in a human whole blood assay).[1] Experimental evidence suggests that etodolac may have favorable tissue pharmacokinetics resulting in further COX-2 selectivity, indicated by favorable reduction in anti-inflammatory action with diminished gastric side effects.[2,3]

References

1. Warner, T.D., Giuliano, F., Vojnovic, I., *et al*. Nonsteroid drug selectivities for cyclo-oxygenase-1 rather than cyclo-oxygenase-2 are associated with human gastrointestinal toxicity: A full *in vitro* analysis. *Proc. Natl. Acad. Sci. USA* **96**, 7563-7568 (1999).
2. Dvornik, D.M. Tissue selective inhibition of prostaglandin biosynthesis by etodolac. *J. Rheumatol.* **24**, 40-50 (1997).
3. Riendeau, D., Percival, M.D., Brideau, C., *et al*. Etoricoxib (MK-0663): Preclinical profile and comparison with other agents that selectively inhibit cyclooxygenase-2. *J. Pharmacol. Exp. Ther.* **296**, 558-566 (2001).

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