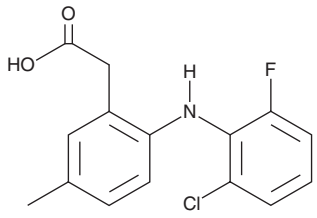
PRODUCT INFORMATION

Lumiracoxib

Item No. 27645

CAS Registry No.: 220991-20-8
Formal Name: 2-[(2-chloro-6-fluorophenyl)amino]-5-methyl-benzeneacetic acid
Synonym: COX 189
MF: $C_{15}H_{13}ClFNO_2$
FW: 293.7
Purity: ≥98%
UV/Vis.: λ_{max}: 274 nm
Supplied as: A crystalline 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

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

Lumiracoxib is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, lumiracoxib should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Lumiracoxib has a solubility of approximately 0.20 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Lumiracoxib is a selective inhibitor of COX-2 with IC_{50} values of 0.13 and 67 µM for COX-2 and COX-1, respectively, in isolated human whole blood.[1] It reduces increases in the levels of prostaglandin E_2 (PGE_2; Item No. 14010) induced by IL-1β in human dermal fibroblasts (IC_{50} = 0.14 µM), as well as in LPS-stimulated RAW 264.7 cells when used at concentrations ranging from 1 to 100 µM.[1,2] Lumiracoxib (3 and 10 mg/kg) also decreases LPS-induced increases in the levels of PGE_2 in a rat model of air pouch inflammation.[3] It reduces *M. tuberculosis*-induced increases in hind paw volume and the radiological and histopathological severity of arthritic lesions in a rat model of chronic arthritis when administered at a dose of 2 mg/kg.[1]

References

1. Esser, R., Berry, C., Du, Z., *et al.* Preclinical pharmacology of lumiracoxib: a novel selective inhibitor of cyclooxygenase-2. *Br. J. Pharmacol.* **144(4),** 538-550 (2005).
2. Niederberger, E., Manderscheid, C., and Geisslinger, G. Different COX-independent effects of the COX-2 inhibitors etoricoxib and lumiracoxib. *Biochem. Biophys. Res. Commun.* **342(3),** 940-948 (2006).
3. Esser, R.E., Miserendino-Molteni, R., Sharr, M., *et al.* Pharmacodynamic behaviour of the selective cyclooxygenase-2 inhibitor lumiracoxib in the lipopolysaccharide-stimulated rat air pouch model. *Eur. J. Pharm. Sci.* **25(1),** 25-30 (2005).

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