

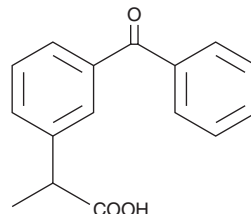
PRODUCT INFORMATION



(±)-Ketoprofen

Item No. 10006661

CAS Registry No.: 22071-15-4
Formal Name: 3-benzoyl- α -methyl-benzeneacetic acid
Synonyms: (R,S)-Ketoprofen, 2-(3-benzoylphenyl) Propionic Acid
MF: C₁₆H₁₄O₃
FW: 254.3
Purity: \geq 98%
UV/Vis.: λ_{max} : 254 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: \geq 4 years



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

Laboratory Procedures

(±)-Ketoprofen is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-ketoprofen in the solvent of choice. (±)-Ketoprofen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of (±)-ketoprofen 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 (±)-ketoprofen can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of (±)-ketoprofen in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(±)-Ketoprofen is a non-selective COX inhibitor and non-steroidal anti-inflammatory drug (NSAID).¹ It inhibits human recombinant COX-1 and COX-2 with IC₅₀ values of 0.5 and 2.33 μ M, respectively. *In vivo*, (±)-ketoprofen reduces carrageenan-induced paw edema and increases latency to paw withdrawal in the hot plate test in rats when administered using a sustained-release implant.² Formulations containing (±)-ketoprofen have been used to treat pain and inflammation in osteoarthritis.

References

1. Barnett, J., Chow, J., Ives, D., *et al.* Purification, characterization and selective inhibition of human prostaglandin G/H synthase 1 and 2 expressed in the baculovirus system. *Biochim Biophys. Acta.* **1209**(1), 130-139 (1994).
2. Zhang, J., Xu, X., Zhu, L., *et al.* Preparation and pre-clinical characterization of sustained release ketoprofen implants for the management of pain and inflammation in osteoarthritis. *Trop. J. Pharm. Res.* **17**(4), 577-582 (2018).

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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