

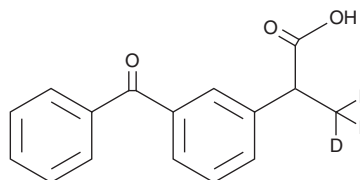
PRODUCT INFORMATION



(±)-Ketoprofen-d₃

Item No. 28148

CAS Registry No.: 159490-55-8
Formal Name: 3-benzoyl-α-(methyl-d₃)-benzeneacetic acid
Synonyms: (R,S)-Ketoprofen-d₃,
2-(3-benzoylphenyl)Propionic Acid-d₃
MF: C₁₆H₁₁D₃O₃
FW: 257.3
Chemical Purity: ≥98% ((±)-Ketoprofen)
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

(±)-Ketoprofen-d₃ is intended for use as an internal standard for the quantification of (±)-ketoprofen (Item No. 10006661) 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).

(±)-Ketoprofen-d₃ is supplied as a solid. A stock solution may be made by dissolving the (±)-ketoprofen-d₃ in the solvent of choice, which should be purged with an inert gas. (±)-Ketoprofen-d₃ is soluble in organic solvents such as methanol and DMSO.

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 μM, 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.

WARRANTY AND LIMITATION OF REMEDY

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