

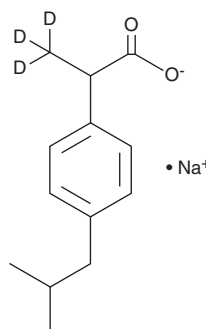
PRODUCT INFORMATION



(±)-Ibuprofen-d₃ (sodium salt)

Item No. 36332

CAS Registry No.: 1219805-09-0
Formal Name: (±)-α-methyl-4-(2-methylpropyl)-benzeneacetic acid-d₃, monosodium salt
Synonym: DL-Ibuprofen-d₃
MF: C₁₃H₁₄D₃O₂ • Na
FW: 231.3
Chemical Purity: ≥98% ((±)-Ibuprofen)
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

(±)-Ibuprofen-d₃ (sodium salt) is intended for use as an internal standard for the quantification of (±)-ibuprofen (Item No. 70280) 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).

(±)-Ibuprofen-d₃ (sodium salt) is supplied as a solid. A stock solution may be made by dissolving the (±)-ibuprofen-d₃ (sodium salt) in the solvent of choice, which should be purged with an inert gas. (±)-Ibuprofen-d₃ (sodium salt) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of (±)-ibuprofen-d₃ (sodium salt) in ethanol and DMSO is approximately 50 mg/ml and approximately 30 mg/ml in DMF.

Description

(±)-Ibuprofen is a non-steroidal anti-inflammatory drug (NSAID) and non-selective COX inhibitor (IC₅₀s = 2.6 and 1.3 μM for human recombinant COX-1 and COX-2, respectively).¹ *In vivo*, (±)-ibuprofen inhibits late-phase formalin-induced paw licking in mice (ED₅₀ = 6.1 mg/kg).² It also inhibits acetic acid-induced writhing in mice (ED₅₀ = 0.47 mg/kg). Formulations containing (±)-ibuprofen have been used in the treatment of fever and mild to severe pain.

References

1. Johnson, J.L., Wimsatt, J., Buckel, S.D., *et al.* Purification and characterization of prostaglandin H synthase-2 from sheep placental cotyledons. *Arch. Biochem. Biophys.* **324**(1), 26-34 (1995).
2. Seguin, L., Le Marouille-Girardon, S., and Millan, M.J. Antinociceptive profiles of non-peptidergic neurokinin₁ and neurokinin₂ receptor antagonists: A comparison to other classes of antinociceptive agent. *Pain* **61**(2), 325-343 (1995).

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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