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- Trockeneiszuschlag
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- Expressversand

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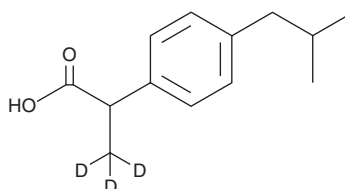
PRODUCT INFORMATION



(±)-Ibuprofen-d₃

Item No. 18255

CAS Registry No.: 121662-14-4
Formal Name: α-(methyl-d₃)-4-(2-methylpropyl)-benzeneacetic acid
Synonym: DL-Ibuprofen-d₃
MF: C₁₃H₁₅D₃O₂
FW: 209.3
Chemical Purity: ≥98% Ibuprofen
Deuterium
Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 212, 219, 263 nm



Laboratory Procedures

(±)-Ibuprofen-d₃ contains three deuterium atoms located on the methyl group. It is intended for use as an internal standard for the quantification of ibuprofen (Item No. 70280) by GC- or LC-mass spectrometry (MS). For long term storage, we suggest that (±)-ibuprofen-d₃ be stored as supplied at -20°C. It should be stable for at least two years.

(±)-Ibuprofen-d₃ is supplied as a crystalline solid. A stock solution may be made by dissolving the (±)-ibuprofen-d₃ in the solvent of choice. (±)-Ibuprofen-d₃ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide, which should be purged with an inert gas. The solubility of (±)-ibuprofen-d₃ in these solvents is approximately 60, 50, and 45 mg/ml, respectively.

(±)-Ibuprofen-d₃ is used as an internal standard for the quantification of ibuprofen by stable isotope dilution 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).

Description

Ibuprofen is a non-selective, reversible COX inhibitor. The IC₅₀ values for human recombinant COX-1 and -2 are 2.6 and 1.53 μM, respectively.¹ The K_i value for ovine COX-1 and -2 is 9 μM.²

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**, 130-139 (1994).
2. 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**, 26-34 (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.

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