

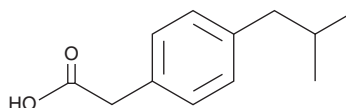
Product Information



Ibuprofen

Item No. 17874

CAS Registry No.: 1553-60-2
Formal Name: 4-(2-methylpropyl)-benzeneacetic acid
Synonyms: Dytransin, Ibunac, 4-Isobutylphenylacetic Acid, NSC 99976
MF: C₁₂H₁₆O₂
FW: 192.3
Purity: ≥95%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 213 nm



Laboratory Procedures

For long term storage, we suggest that ibuprofen be stored as supplied at -20°C. It should be stable for at least two years.

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

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 ibuprofen can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of ibuprofen 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

Ibuprofen is an analog of the NSAID ibuprofen (Item No. 70280) that inhibits COX-1 and -2 activity with IC₅₀ values of 17.4 and 13.1 μM, respectively.¹

Reference

1. Gülcan, H.O., Ünlü, S., Dimoglo, A., *et al.* Marginally designed new profen analogues have the potential to inhibit cyclooxygenase enzymes. *Arch. Pharm. Chem. Life Sci.* **348**, 55-61 (2015).

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. 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

Cayman Chemical Company makes **no warranty or guarantee** of any kind, whether written or oral, expressed or implied, including without limitation, any warranty of fitness for a particular purpose, suitability and merchantability, which extends beyond the description of the chemicals hereof. Cayman **warrants only** to the original customer that the material will meet our specifications at the time of delivery.

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