

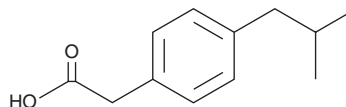
# PRODUCT INFORMATION



## 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:** C<sub>12</sub>H<sub>16</sub>O<sub>2</sub>  
**FW:** 192.3  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 213 nm  
**Supplied as:** A crystalline 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 is supplied as a crystalline solid. A stock solution may be made by dissolving the ibuprofen in the solvent of choice, which should be purged with an inert gas. Ibuprofen is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. 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 IC<sub>50</sub> values of 17.4 and 13.1 μM, respectively.<sup>1</sup>

### References

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 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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