

Certificate of Analysis

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Product Name: (S)-(+)-Ibuprofen

Catalog No.: 2796

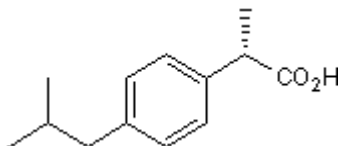
Batch No.: 1

CAS Number: 51146-56-6

IUPAC Name: (S)- α -Methyl-4-(2-methylpropyl)benzeneacetic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₃ H ₁₈ O ₂
Batch Molecular Weight:	206.28
Physical Appearance:	White crystalline solid
Solubility:	DMSO to 100 mM ethanol to 100 mM
Storage:	Store at RT
Batch Molecular Structure:	



2. ANALYTICAL DATA

Melting Point:	Between 51 - 52°C
HPLC:	Shows >99.9% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
Optical Rotation:	[α] _D = +61.7 (Concentration = 0.6, Solvent = Methanol)

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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Description:

Non-steroidal anti-inflammatory drug (NSAID) that inhibits cyclooxygenase 1 and cyclooxygenase 2 (IC₅₀ values are 12 and 80 μ M respectively). Active isomer of ibuprofen.

Physical and Chemical Properties:

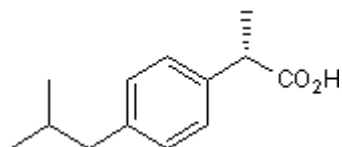
Batch Molecular Formula: C₁₃H₁₈O₂

Batch Molecular Weight: 206.28

Physical Appearance: White crystalline solid

Minimum Purity: >99%

Batch Molecular Structure:



Storage: Store at RT

Solubility & Usage Info:

DMSO to 100 mM
ethanol to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Kato et al (2001) Cyclooxygenase-1 and cyclooxygenase-2 selectivity of non-steroidal anti-inflammatory drugs: investigation using human peripheral monocytes. *J.Pharm.Pharmacol.* **53** 1679. PMID: 11804398.

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