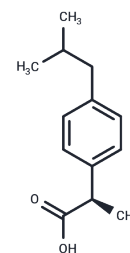


## (R)-(-)-Ibuprofen

## Chemical Properties

CAS No. :	51146-57-7
Formula:	C <sub>13</sub> H <sub>18</sub> O <sub>2</sub>
Molecular Weight:	206.28
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



## Biological Description

Description	(R)-(-)-Ibuprofen ((R)-Ibuprofen) is the R enantiomer of Ibuprofen and inhibits NF-κB activation. (R)-(-)-Ibuprofen has anti-inflammatory and antinociceptive effects.
Targets(IC50)	NF-κB
In vitro	(R)-(-)-Ibuprofen participates in lipid metabolism pathways and integrates into triglycerides alongside endogenous fatty acids. It inhibits NF-κB luciferase activity (IC50: 121.8 μM), less potently than S(+)-ibuprofen (IC50: 61.7 μM). At 1 μM, it significantly reduces NF-κB activation and completely prevents its induction at 10 μM. Additionally, (R)-(-)-Ibuprofen (10 mM) does not affect HSF [1][2].

## Solubility Information

Solubility	DMSO: 45 mg/mL (218.15 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (9.7 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	4.8478 mL	24.2389 mL	48.4778 mL
5 mM	0.9696 mL	4.8478 mL	9.6956 mL
10 mM	0.4848 mL	2.4239 mL	4.8478 mL
50 mM	0.097 mL	0.4848 mL	0.9696 mL

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Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Evans AM, et al. Comparative pharmacology of S(+)-ibuprofen and (RS)-ibuprofen. Clin Rheumatol. 2001 Nov;20 Suppl 1:S9-14.

Scheuren N, et al. Modulation of transcription factor NF-kappaB by enantiomers of the nonsteroidal drug ibuprofen. Br J Pharmacol. 1998 Feb;123(4):645-52.

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