

Nabumetone

Chemical Properties

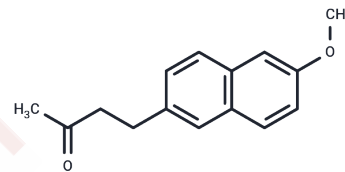
CAS No. : 42924-53-8

Formula: C₁₅H₁₆O₂

Molecular Weight: 228.29

Appearance: no data available

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year



Biological Description

Description	Nabumetone (BRL14777)(BRL14777) is a non-steroidal anti-inflammatory drug and its active metabolite 6MNA inhibits the enzymes cyclo-oxygenase I and II.
Targets(IC50)	Glutathione Peroxidase,COX
In vitro	Nabumetone exhibits anti-inflammatory activity in rat models of carrageenan-induced edema and UV-induced erythema in guinea pigs. In a rat granuloma model, Nabumetone is non-toxic at concentrations higher than the minimum effective dose. Furthermore, in adjuvant-induced arthritic rats, Nabumetone demonstrates good gastric tolerability at doses exceeding those required for anti-inflammatory efficacy.
In vivo	Nabumetone undergoes extensive first-pass metabolism to form its main active metabolite (6-MNA) in the systemic circulation, which is capable of inhibiting COX-2.
Kinase Assay	Cells are harvested, washed, and lysed in NP-40 lysis buffer (50 mM Tris-HCl [pH 7.5], 150 mM NaCl, 0.5% NP-40). Total cell protein is quantified using the Bradford assay and 1-mg/mL protein aliquots are made. Ten microliters of total cell protein is mixed with 290 µL of substrate solution (0.1 mg/mL dithiothreitol [DTT], 0.1 mg/mL albumin, and 1 mM alanine-β-naphthylamide). Fluorometric measurements (340 nm excitation, 400 nm emission) are made after 15 and 30 min. The slope of the line between the 15- and 30-min measurements is used to represent aminopeptidase activity. Total cell protein is preincubated with bestatin, amastatin, puromycin, EDTA, and/or ZnCl ₂ for 20 min before the fluorometric aminopeptidase assay.

Solubility Information

Solubility	DMSO: 55 mg/mL (240.92 mM),Sonication is recommended. Ethanol: 24 mg/mL (105.13 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.3804 mL	21.902 mL	43.8039 mL
5 mM	0.8761 mL	4.3804 mL	8.7608 mL
10 mM	0.438 mL	2.1902 mL	4.3804 mL
50 mM	0.0876 mL	0.438 mL	0.8761 mL

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.

Reference

Hedner T, et al. Drugs, 2004, 64(20), 2315-2343.

Boyle EA, et al. J Pharm Pharmacol, 1982, 34(9), 562-569.

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