

Product Data Sheet

Product Name: Nabumetone

Cat. No.: GC13422

Chemical Properties

Cas. No. 42924-53-8

Chemical Name 4-(6-methoxynaphthalen-2-yl)butan-2-one

SMILES CC(=O)CCC1=CC2=C(C=C1)C=C(C=C2)OC

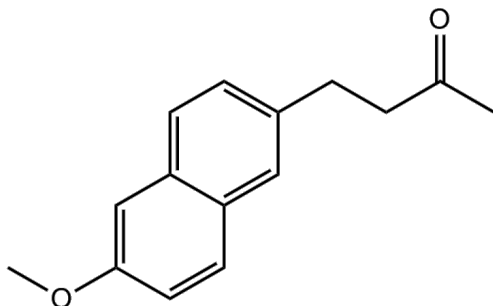
Formula $C_{15}H_{16}O_2$ M.Wt 228.29

Solubility $\geq 11.4\text{mg/mL}$ in DMSO Storage Store at 2-8°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution: ship with blue ice. All other available size: ship with RT, or blue ice upon request.

Structure



Protocol

Cell experiment: Every cell line is plated into 6-well plates at a concentration of $3 \times 10^5/\text{mL}$ with or without drugs (Nabumetone, etc.) and incubated for 48 h. Viable cells are then counted using the trypan blue dye exclusion test. The percentage of proliferation inhibition is calculated as $1 - (\text{viable cells exposed to drug} / \text{viable cells in control}) \times 100\%$.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

Animal experiment: Rats[3]Albino male rats (250- to 300-g body weight) are used in the study. The animals are maintained in a single cage and are deprived of food for 16 h before the onset of experiments. Free access to water is allowed until 1 h before the beginning of experiments. There are eight rats in each group. The animals are pretreated with intraperitoneal injections of Nabumetone or dipyrene at 25-, 50-, or 100-mg/kg doses for 3 days[3].

References:

- [1]. Vural F, et al. Cyclo-oxygenase 2 inhibitor, nabumetone, inhibits proliferation in chronic myeloid leukemia cell lines. *Leuk Lymphoma*. 2005 May;46(5):753-6.
- [2]. Melarange R, et al. Anti-inflammatory and gastrointestinal effects of nabumetone or its active metabolite, 6MNA (6-methoxy-2-naphthylacetic acid): comparison with indomethacin. *Agents Actions*. 1992;Spec No:C82-3.

Background

Nabumetone is an orally active non-acidic anti-inflammatory agent, acts as a potent and selective COX-2 inhibitor, and is the prodrug of the active metabolite 6MNA.

Nabumetone is a potent and selective COX-2 inhibitor. Nabumetone (50 μ mol-2 mmol) dose-dependently inhibits the proliferation of K-562 and Meg-01 cells, but shows no obvious apoptotic effect. Nabumetone potentiates the apoptotic effect of ADR in the K-562 cell line. Moreover, Nabumetone reduces Bcl-2 expression[1].

Nabumetone (79 mg/kg, p.o.) inhibits paw oedema and paw exudate PGE2 in rats. Nabumetone does not induce gastric damage and causes only 57% inhibition of gastric mucosal 6-keto-PGF1 α production in rats[2]. Nabumetone (25, 50, 100 mg/kg, i.p.) dose-dependently inhibits the increase of DDC-induced mucus secretion and stimulates stress-induced mucus secretion in rats. Nabumetone (25 mg/kg, i.p.) significantly suppresses stress-induced ulcer index in rats[3].

Reference:

- [1]. Vural F, et al. Cyclo-oxygenase 2 inhibitor, nabumetone, inhibits proliferation in chronic myeloid leukemia cell lines. *Leuk Lymphoma*. 2005 May;46(5):753-6.
- [2]. Melarange R, et al. Anti-inflammatory and gastrointestinal effects of nabumetone or its active metabolite, 6MNA (6-methoxy-2-naphthylacetic acid): comparison with indomethacin. *Agents Actions*.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

Product Data Sheet

1992;Spec No:C82-3.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA