

Product Data Sheet

Product Name: Mefenamic Acid

Cat. No.: GC11096

Chemical Properties

Cas. No. 61-68-7

Chemical Name 2-(2,3-dimethylanilino)benzoic acid

SMILES CC1=C(C(=CC=C1)NC2=CC=CC=C2C(=O)O)C

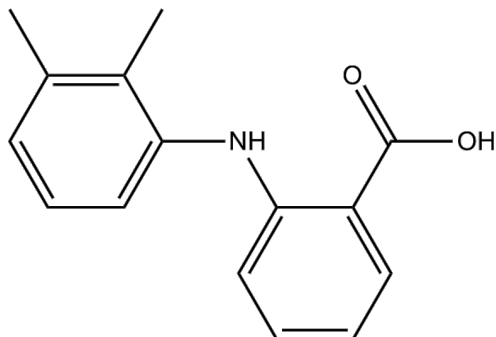
Formula $C_{15}H_{15}NO_2$ M.Wt 241.29

Solubility $\geq 12.06\text{mg/mL}$ in DMSO Storage Store at -20°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: Powder forms of Mefenamic acid, indometacin, aspirin, and celecoxib are dissolved in 0.1% dimethyl sulfoxide (DMSO) to achieve a concentration of 100 μM of stock solution, which is sterilized by filtration through a 0.22- μm filter and then stored at 4°C . Different concentrations (100, 50, 25, 10, and 5 μM) of the drugs (Mefenamic acid, etc.) are prepared by serial dilutions with the FCS-free medium or the medium containing 10% FCS in sterile plastic centrifuge tubes[2].

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

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

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References:

- [1]. Gierse JK, et al. Expression and selective inhibition of the constitutive and inducible forms of human cyclo-oxygenase. *Biochem J.* 1995 Jan 15;305 (Pt 2):479-84.
- [2]. Hashemipour MA, et al. In Vitro Cytotoxic Effects of Celecoxib, Mefenamic Acid, Aspirin and Indometacin on Several Cells Lines. *J Dent (Shiraz).* 2016 Sep;17(3):219-25.

Background

Mefenamic acid is a non-steroidal anti-inflammatory agent, acting as a competitive inhibitor of hCOX-1 and hCOX-2, with IC50s of 40 nM and 3 μ M for hCOX-1 and hCOX-2, respectively.

Mefenamic acid is a non-steroidal anti-inflammatory agent, acting as a competitive inhibitor of hCOX-1, with IC50s of 40 nM and 3 μ M for hCOX-1 and hCOX-2, respectively[1]. Mefenamic acid (0-100 μ M) has cytotoxic effects on KB, Saos-2, and 1321N cells, however, U-87MG cells are resistant to Mefenamic acid[2].

References:

- [1]. Gierse JK, et al. Expression and selective inhibition of the constitutive and inducible forms of human cyclo-oxygenase. *Biochem J.* 1995 Jan 15;305 (Pt 2):479-84.
- [2]. Hashemipour MA, et al. In Vitro Cytotoxic Effects of Celecoxib, Mefenamic Acid, Aspirin and Indometacin on Several Cells Lines. *J Dent (Shiraz).* 2016 Sep;17(3):219-25.

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