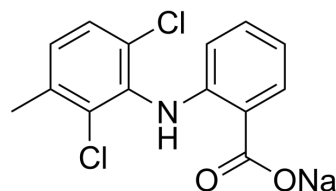


## Meclofenamic acid sodium

<b>Cat. No.:</b>	HY-B1320
<b>CAS No.:</b>	6385-02-0
<b>Molecular Formula:</b>	C <sub>14</sub> H <sub>10</sub> Cl <sub>2</sub> NNaO <sub>2</sub>
<b>Molecular Weight:</b>	318.13
<b>Target:</b>	Gap Junction Protein; Endogenous Metabolite
<b>Pathway:</b>	Cytoskeleton; Metabolic Enzyme/Protease
<b>Storage:</b>	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 1 years; -20°C, 6 months (sealed storage, away from moisture and light)



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : 125 mg/mL (392.92 mM; Need ultrasonic)  
H<sub>2</sub>O : 100 mg/mL (314.34 mM; Need ultrasonic)

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.1434 mL	15.7168 mL	31.4337 mL
	5 mM	0.6287 mL	3.1434 mL	6.2867 mL
	10 mM	0.3143 mL	1.5717 mL	3.1434 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 2.08 mg/mL (6.54 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 2.08 mg/mL (6.54 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 2.08 mg/mL (6.54 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

Meclofenamic acid (Meclofenamate) sodium is a nonsteroidal anti-inflammatory agent (NSAID) approved for use in arthritis (osteo and rheumatoid), analgesia (mild to moderate pain), dysmenorrhea, and heavy menstrual blood loss (menorrhagia). Meclofenamic acid sodium is a non-selective gap-junction blocker and a highly selective inhibitor of fat mass and obesity-associated (FTO) enzyme inhibitor<sup>[1][2][3]</sup>.

### CUSTOMER VALIDATION

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- Theranostics. 2021 Jul 25;11(17):8464-8479.
  - Sensor Actuat B-Chem. 2021, 129983.
  - Biomed Opt Express. 2021 Mar 9.
  - Biomater Adv. 2023 Sep 22, 213634.

See more customer validations on [www.MedChemExpress.com](http://www.MedChemExpress.com)

## REFERENCES

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- [1]. Conroy MC, et al. Pharmacology, pharmacokinetics, and therapeutic use of meclofenamate sodium. Clin J Pain. 1991;7 Suppl 1:S44-8.
- [2]. Eleftheriou CG, et al. Meclofenamic acid improves the signal to noise ratio for visual responses produced by ectopic expression of human rod opsin. Mol Vis. 2017 Jun 16;23:334-345. eCollection 2017.
- [3]. Huang Y, et al. Meclofenamic acid selectively inhibits FTO demethylation of m6A over ALKBH5. Nucleic Acids Res. 2015 Jan;43(1):373-84.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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