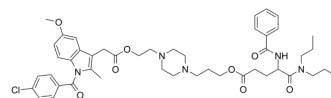


## Proglumetacin

<b>Cat. No.:</b>	HY-106560
<b>CAS No.:</b>	57132-53-3
<b>Molecular Formula:</b>	C <sub>46</sub> H <sub>58</sub> ClN <sub>5</sub> O <sub>8</sub>
<b>Molecular Weight:</b>	844.43
<b>Target:</b>	COX; SARS-CoV
<b>Pathway:</b>	Immunology/Inflammation; Anti-infection
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Proglumetacin is an orally active and potent cyclo-oxygenase inhibitor. Proglumetacin can inhibit SARS-CoV Mpro (main protease of the SARS-CoV-2), with an AC <sub>50</sub> of 8.9 μM (activity concentration at half maximal activity). Proglumetacin has anti-inflammatory activity, can be used for inflammation (such as Rheumatoid arthritis, and Allergic air pouch inflammation) research[1][2][3].
<b>In Vitro</b>	Proglumetacin strongly inhibits 5-HETE formation, with an IC <sub>50</sub> of 1.5 μM <sup>[2]</sup> . Proglumetacin inhibits leukocyte migration by inhibiting the production of the chemotactic cyclo-oxygenase product thromboxane B <sub>2</sub> <sup>[2]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	Proglumetacin (Sprague-Dawley rats, 0-30 mg/kg, Orally, once) dose-dependently inhibits accumulation of pouch exudate <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>Animal Model:</b>	Sprague-Dawley rats (6 weeks)
<b>Dosage:</b>	0, 0.3, 3, 9, 30 mg/kg
<b>Administration:</b>	Orally, once
<b>Result:</b>	Caused dose-dependent reduction of leukocyte migration into the pouch exudate, caused 49.2% inhibition at 30 mg/kg; and markedly decreased the prostaglandin E <sub>2</sub> content of the pouch exudate, but tended to increase the leukotriene B <sub>4</sub> content.

### REFERENCES

- [1]. Naohiko Ono, et al. Effects of proglumetacin maleate and its major metabolites on allergic air pouch inflammation in rats. *Eur J Pharmacol.* 1987;142(2):245-251.
- [2]. Ono N, et al. Pharmacological studies on proglumetacin maleate, a new non-steroidal anti-inflammatory drug (4). Mode of action on anti-inflammatory activity. *Japanese Journal of Pharmacology*, 1986, 42(3):431-9.
- [3]. Alves VM, et al. QSAR Modeling of SARS-CoV Mpro Inhibitors Identifies Sufugolix, Cenicriviroc, Proglumetacin, and other Drugs as Candidates for Repurposing against SARS-CoV-2. *Mol Inform.* 2021 Jan;40(1):e2000113.

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

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