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产品名称：托美丁钠二水合物
产品别名：Tolmetin sodium dihydrate

生物活性：

Description	Tolmetin sodium dihydrate is a non-steroidal antiinflammatory agent, and acts as a non-selective COX inhibitor.
IC_{50} & Target	COX
In Vitro	Tolmetin sodium dihydrate is a non-steroidal antiinflammatory agent. Tolmetin (0-100 μM) shows no effect on osteoblast growth[2]. Tolmetin (0.25 mM) dose not attenuate lipid peroxidation in rat brain homogenate. Tolmetin (0.25, 0.5, 0.75, 1 mM) shows radical scavenging properties but without superoxide anion generation in rat brain homogenat[3].
In Vivo	Tolmetin (100 mg/kg) causes gastric lesions, and shows maximal ulcerogenic effect 4 h after the single dose, while potently decreases after 3 and 14 days of repeated administration. Tolmetin produces obvious endothelial damage and inflammatory cell infiltration[1]. Tolmetin (5 mg/kg, i.p., twice a day for 5 days) has no effect on n NMDA receptor binding in rats[3].
Solvent&Solubility	***In Vitro:*** **H_2O : ≥ 100 mg/mL (317.16 mM)** * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.1716 mL	15.8579 mL	31.7158 mL
	5 mM	0.6343 mL	3.1716 mL	6.3432 mL
	10 mM	0.3172 mL	1.5858 mL	3.1716 mL

*请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液；一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。

储备液的保存方式和期限：-80°C, 6 months; -20°C, 1 month。-80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。

References	[1]. Morini G, et al. Morphological features of rat gastric mucosa after acute and chronic treatment with amtolmetin guacyl: comparison with non-selective and COX-2-selective NSAIDs. Digestion. 2003;68(2-3):124-32. Epub 2003 Nov 7. [2]. Etcheverry SB, et al. Three new vanadyl(IV) complexes with non-steroidal anti-inflammatory drugs (Ibuprofen, Naproxen and Tolmetin). Bioactivity on osteoblast-like cells in culture. J Inorg Biochem. 2002 Jan 1;88(1):94-100. [3]. Dairam A, et al. Non-steroidal anti-inflammatory agents, tolmetin and sulindac, attenuate oxidative stress in rat brain homogenate and reduce quinolinic acid-induced neurodegeneration in rat hippocampal neurons. Metab Brain Dis. 2006 Sep;21(2-3):221-33.

实验参考：

	Rats[1] After 2 weeks of acclimatization, rats are randomized to different groups and given the non-selective COX inhibitors, amtolmetin guacyl (AMG) (50 and 150 mg/kg) and Tolmetin (30 and 100 mg/kg) as

Animal Administration	well as the selective COX-2 inhibitor, celecoxib (CXIB; 20 and 60 mg/kg). The compounds are suspended in 1% carboxymethylcellulose (CMC) immediately before use and administered by gavage in a 10-mL/kg volume. Control groups receive CMC in the same volume. Rats from each group are divided into 3 subgroups, consisting each of at least 10 animals. Subgroups are dosed either with a single dose (acute treatment group) or twice daily for 3 and 14 days (chronic treatment groups). To ensure that all groups are dosed for the same period of time, those receiving less than 14 days of NSAIDs are given CMC until they are due to start the assigned treatment. Rats are killed by cervical dislocation 4 h after the last administration. Stomachs are immediately removed, opened along the lesser curvature and gently rinsed[1].
References	[1]. Morini G, et al. Morphological features of rat gastric mucosa after acute and chronic treatment with amtolmetin guacyl: comparison with non-selective and COX-2-selective NSAIDs. Digestion. 2003;68(2-3):124-32. Epub 2003 Nov 7. [2]. Etcheverry SB, et al. Three new vanadyl(IV) complexes with non-steroidal anti-inflammatory drugs (Ibuprofen, Naproxen and Tolmetin). Bioactivity on osteoblast-like cells in culture. J Inorg Biochem. 2002 Jan 1;88(1):94-100. [3]. Dairam A, et al. Non-steroidal anti-inflammatory agents, tolmetin and sulindac, attenuate oxidative stress in rat brain homogenate and reduce quinolinic acid-induced neurodegeneration in rat hippocampal neurons. Metab Brain Dis. 2006 Sep;21(2-3):221-33.