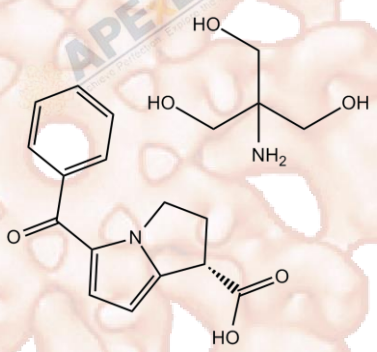
Product Data Sheet

Ketorolac tromethamine salt

Cat. No.: B1447
CAS No.: 74103-07-4
Formula: C19H24N2O6
M.Wt: 376.4
Synonyms:
Target: Neuroscience
Pathway: COX
Storage: Store at -20°C



Solvent & Solubility

In Vitro

⩾13.1 mg/mL in DMSO; ⩾9.9 mg/mL in EtOH with ultrasonic; ⩾92.8 mg/mL in H2O

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	2.6567 mL	13.2837 mL	26.5675 mL
5 mM	0.5313 mL	2.6567 mL	5.3135 mL
10 mM	0.2657 mL	1.3284 mL	2.6567 mL

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

Biological Activity

Shortsummary	Non-selective COX inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	HEL, Mono Mac 6 and RAW 264.7 cells
Preparation method:	The solubility of this compound in DMSO is > 10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20 °C for several months.
Reacting conditions:	0.025 ~ 300 μM

	Applications:	In HEL cells (COX-1) and LPS-induced Mono Mac 6 cells (COX-2), Ketorolac tromethamine salt inhibited eicosanoid formation with the IC50 value of 0.025 μM and 0.039 μM, respectively. However, in supernatants of LPS-induced RAW 264.7 cells, it did not significantly inhibit NO accumulation at the dose up to 300 μM.
In Vivo	**Animal experiment**	
	Animal models:	Male Wistar rats
	Dosage form:	0.3 ~ 30 mg/kg; p.o.
	Applications:	At all doses, Ketorolac tromethamine salt significantly inhibited COX-1 activity and gastric PG synthesis. At the doses ≥ 1 mg/kg, Ketorolac tromethamine salt inhibited COX-1 activity by 95% and gastric PG synthesis by > 88%, without causing obvious gastric damage. At the dose ≤ 3 mg/kg, Ketorolac tromethamine salt did not significantly affect COX-2 activity, but at the doses of 10 and 30 mg/kg, it inhibited COX-2 activity by 75% and 91%, respectively. Meanwhile, it caused significant gastric damage as well.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

[1]. Berg J, Fellier H, Christoph T, Grarup J, Stimmeder D. The analgesic NSAID lornoxicam inhibits cyclooxygenase (COX)-1/-2, inducible nitric oxide synthase (iNOS), and the formation of interleukin (IL)-6 in vitro. Inflamm Res. 1999 Jul;48(7):369-79.

[2]. Wallace JL, McKnight W, Reuter BK, Vergnolle N. NSAID-induced gastric damage in rats: requirement for inhibition of both cyclooxygenase 1 and 2. Gastroenterology. 2000 Sep;119(3):706-14.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt

of the product, follow the storage recommendations on the product data sheet.

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