Product Data Sheet

Carprofen

Cat. No.: B1690
CAS No.: 53716-49-7
Formula: C15 H12ClNO2
M.Wt: 273.71
Synonyms:
Target:
Pathway:
Storage: Store at -20°C

Solvent & Solubility

In Vitro

insoluble in H2O; ⩾11.05 mg/mL in DMSO; ⩾19.17 mg/mL in EtOH

Preparing Stock Solutions

Mass / Solvent / Concentration	1mg	5mg	10mg
1 mM	3.6535 mL	18.2675 mL	36.5350 mL
5 mM	0.7307 mL	3.6535 mL	7.3070 mL
10 mM	0.3654 mL	1.8268 mL	3.6535 mL

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

Biological Activity

Shortsummary	COX inhibitor
IC_{50} & Target	

In Vitro

Cell Viability Assay

Cell Line:	gastric mucosa
Preparation method:	The solubility of this compound in DMSO is >11.1mg/mL. 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:	40 or 400 μg/mL

	Applications:	In the gastric mucosa of dogs, carprofen increased in vitro conductance and permeability to mannitol. Carprofen (400 μg/mL) caused sloughing of epithelial cells. Carprofen appeared to compromise gastric mucosal integrity and barrier function in dogs.
In Vivo	**Animal experiment**	
	Animal models:	Dogs with chronic unilateral osteoarthritis of the stifle joint
	Dosage form:	10 days with a 30- to 60-day washout period
	Applications:	Carprofen significantly suppressed PGE2 concentrations in blood at days 3 and 10. Carprofen significantly decreased gastric synthesis of PGE2 at day 3 but not day 10 of each treatment period. Carprofen decreased synovial fluid PGE2 concentrations in the affected and unaffected stifle joints at days 3 and 10.
	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] Hicks M A, Hosgood G L, Morgan T W, et al. In vitro effect of carprofen and meloxicam on the conductance and permeability to mannitol and the histologic appearance of the gastric mucosa of dogs[J]. American journal of veterinary research, 2011, 72(4): 570-577.

[2] Sessions J K, Reynolds L R, Budsberg S C. In vivo effects of carprofen, deracoxib, and etodolac on prostanoid production in blood, gastric mucosa, and synovial fluid in dogs with chronic osteoarthritis[J]. American journal of veterinary research, 2005, 66(5): 812-817.

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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