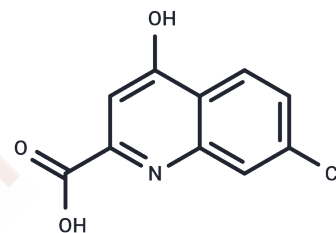


7-Chlorokynurenic acid

Chemical Properties

CAS No. :	18000-24-3
Formula:	C ₁₀ H ₆ ClNO ₃
Molecular Weight:	223.61
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year Actual storage temperature shall be subject to the COA.



Biological Description

Description	7-Chlorokynurenic acid (7-chloro-4-hydroxy-2-carboxyquinoline) is an effective and selective antagonist of NMDA receptor with IC ₅₀ of 0.56 μM for the glycine B coagonist site. 7-Chlorokynurenic acid inhibits the reuptake of glutamate into synaptic vesicles with a K _i of 0.59 μM and shows antinociceptive actions after neuraxial delivery.
Targets(IC ₅₀)	GluR,NMDAR,iGluR
In vivo	In male Sprague-Dawley rats, 7-Chlorokynurenic acid (10 nM) retards the development of both the electroencephalographic and motor (17.7 daily stimulations) components of the seizure response[3].

Solubility Information

Solubility	DMSO: 15 mg/mL (67.08 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (4.47 mM),Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	4.4721 mL	22.3604 mL	44.7207 mL
5 mM	0.8944 mL	4.4721 mL	8.9441 mL
10 mM	0.4472 mL	2.236 mL	4.4721 mL
50 mM	0.0894 mL	0.4472 mL	0.8944 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

- Kemp JA, et al. 7-Chlorokynurenic acid is a selective antagonist at the glycine modulatory site of the N-methyl-D-aspartate receptor complex. *Proc Natl Acad Sci U S A.* 1988 Sep;85(17):6547-50.
- Yaksh TL, et al. Characterization of the Effects of L-4-Chlorokynurenine on Nociception in Rodents. *J Pain.* 2017 Oct; 18(10):1184-1196.
- Croucher MJ, et al. 7-Chlorokynurenic acid, a strychnine-insensitive glycine receptor antagonist, inhibits limbic seizurekindling. *Neurosci Lett.* 1990 Oct 2;118(1):29-32.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

This product is for Research Use Only · Not for Human or Veterinary or Therapeutic Use

Tel:781-999-4286 E_mail:info@targetmol.com Address:34 Washington Street,Wellesley Hills,MA 02481