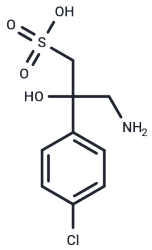
Data Sheet (Cat.No.T22495)

TargetMol

2-Hydroxysaclofen

Chemical Properties



CAS No. : 117354-64-0

Formula: C9H12ClNO4S

Molecular Weight: 265.71

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	2-Hydroxysaclofen is a potent γ-amino-butyric-acid-B receptor antagonist that effectively abolishes nicotine-induced hypolocomotor effects, enhances antinociceptive responses, and stimulates luteinizing hormone secretion in female rats, making it a valuable pharmacological probe for investigating GABAB receptor-mediated neuroendocrine regulation and behavioral pharmacology.
Targets(IC50)	GABA Receptor
In vivo	In male Swiss Webster mice, intraperitoneal (IP) administration of 2-Hydroxysaclofen (0.25-1 mg/kg) modulates the acute effects of nicotine. At a dose of 1 mg/kg, it abolishes nicotine-induced hypolocomotion while enhancing its antinociceptive effects. In male Wistar rats, IP administration (0.3-3 mg/kg) antagonizes the ability of Baclofen to alter the discriminative stimulus effects of d-amphetamine. Furthermore, in estrogen-primed ovariectomized female rats, intracerebroventricular (ICV) injection (50-100 ug/mL) leads to an elevation in serum Luteinizing Hormone (LH) concentrations, with peak levels observed 10 minutes post-injection [1][2][3].

Solubility Information

Solubility	1M NaOH: 25 mg/mL (94.09 mM),Sonication is recommended. H2O: 40 mg/mL (150.54 mM),when pH is adjusted to 11 with 1 M NaOH. Sonication is recommmended. 1eq. NaOH: 100 mM,Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.7635 mL	18.8175 mL	37.635 mL
5 mM	0.7527 mL	3.7635 mL	7.527 mL
10 mM	0.3764 mL	1.8818 mL	3.7635 mL
50 mM	0.0753 mL	0.3764 mL	0.7527 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

Varani AP, et al. Baclofen and 2-hydroxysaclofen modify acute hypolocomotive and antinociceptive effects of nicotine. Eur J Pharmacol. 2014 Sep 5;738:200-5.
Miranda F, et al. The GABA-B antagonist 2-hydroxysaclofen reverses the effects of baclofen on the discriminative stimulus effects of D-amphetamine in the conditioned taste aversion procedure. Pharmacol Biochem Behav. 2009 Jul;93(1):25-30.
Akema T, et al. 2-Hydroxysaclofen, a potent GABAB receptor antagonist, stimulates luteinizing hormone secretion in female rats. Brain Res. 1991 Apr 12;546(1):143-5.