L-Cysteinesulfinic acid

Cat. No.: HY-100804

CAS No.: 1115-65-7

Molecular Formula: $C_3H_7NO_4S$

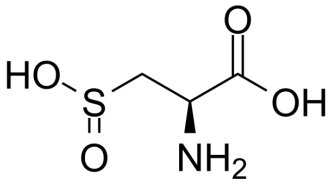
Molecular Weight: 153.16

Target: mGluR; Endogenous Metabolite

Pathway: GPCR/G Protein; Neuronal Signaling; Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

H_2O : 125 mg/mL (816.14 mM; Need ultrasonic)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	6.5291 mL	32.6456 mL	65.2912 mL
	5 mM	1.3058 mL	6.5291 mL	13.0582 mL
	10 mM	0.6529 mL	3.2646 mL	6.5291 mL

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

BIOLOGICAL ACTIVITY

Description

L-Cysteinesulfinic acid is a potent agonist at several rat metabotropic glutamate receptors (mGluRs) with pEC_{50}s of 3.92, 4.6, 3.9, 2.7, 4.0, and 3.94 for mGluR1, mGluR5, mGluR2, mGluR4, mGluR6, and mGluR8, respectively[1].

IC_{50} & Target

mGluR1 3.92 (pEC50)	mGluR2 3.9 (pEC50)	mGluR4 2.7 (pEC50)	mGluR5 4.6 (pEC50)
mGluR6 4.0 (pEC50)	mGluR8 3.94 (pEC50)	Human Endogenous Metabolite	

In Vitro

L-Cysteinesulfinic acid is an endogenous agonist of a metabotropic receptor coupled to stimulation of phospholipase D (PLD) activity. L-CSA is an endogenous agonist of the PLD-coupled metabotropic excitatory amino acids (EAA) receptor. L-CSA selectively activates the PLD-coupled receptor. 1 mM L-CSA induces a significant increase in PLD activity in hippocampal slices, whereas 1 mM concentrations of L-glutamate, L-aspartate, and L-HCA are without effect. L-CSA elicits a dose-dependent increase in PLD activity in rat hippocampal slices in the presence of iGluR antagonists, with an approximate EC_{50} of 500 uM. The PLD response induced by 1 mM L-CSA is not significantly decreased in the presence of 1 uM tetrodotoxin,

suggesting that this response is not dependent upon L-CSA-induced increasesin cell firing[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Shi Q, et al. L-homocysteine sulfinic acid and other acidic homocysteine derivatives are potent and selective metabotropic glutamate receptor agonists. J Pharmacol Exp Ther. 2003 Apr;305(1):131-42.

[2]. Boss V, et al. L-cysteine sulfinic acid as an endogenous agonist of a novel metabotropic receptor coupled to stimulation of phospholipase D activity.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA