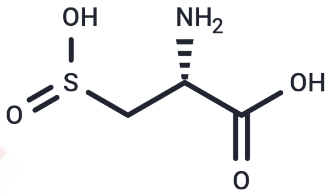
Data Sheet (Cat.No.T11803)

TargetMol

L-Cysteinesulfinic acid

Chemical Properties



CAS No. : 1115-65-7

Formula: C3H7NO4S

Molecular Weight: 153.16

Storage: Keep away from moisture
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	L-Cysteinesulfinic acid is an endogenous neurotransmitter with agonistic effects on a variety of metabotropic glutamate receptors (mGluRs), including mGluR1, mGluR5, mGluR2, mGluR4, mGluR6, and mGluR8, with a pEC50 = 2.7 to 4.0. L- Cysteinesulfinic acid is a pld-coupled agonist of metabotropic excitatory amino acid (EAA) receptors.
Targets(IC50)	Endogenous Metabolite,GluR
In vitro	CHO cells expressing mGluR1, mGluR5, and mGluR8 were treated with L-Cysteinesulfinic acid (L-CSA) for 45 minutes at 37°C, and receptor activation was assessed by measuring [^{3}H]-inositol phosphate accumulation. The results showed that L-CSA activated mGluR1 and mGluR5, inducing IP formation with lower potency than L-glutamate but with significant activity. In cells expressing mGluR2, mGluR4, and mGluR6, L-CSA inhibited forskolin-induced cAMP production, indicating activation of these Gi/o-coupled receptors via inhibition of adenylyl cyclase [1].

Solubility Information

Solubility	H2O: 110 mg/mL (718.2 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
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
50 mM	0.1306 mL	0.6529 mL	1.3058 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

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.
Maione S, et al. L-Cysteinesulfinic acid modulates cardiovascular function in the periaqueductal gray area of rat. J Cardiovasc Pharmacol. 1998 Oct;32(4):650-3.

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