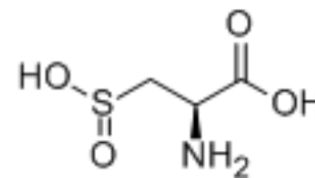


L-Cysteinesulfinic acid

Cat. No.:	HY-100804
CAS No.:	1115-65-7
Molecular Formula:	C ₃ H ₇ NO ₄ S
Molecular Weight:	153.16
Target:	mGluR; Endogenous Metabolite
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	L-Cysteinesulfinic acid is a potent agonist at several rat metabotropic glutamate receptors (mGluRs) with pEC ₅₀ s of 3.92±0.03, 4.6±0.2, 3.9±0.2, 2.7±0.2, 4.0±0.2, and 3.94±0.08 for mGluR1, mGluR5, mGluR2, mGluR4, mGluR6, and mGluR8, respectively.
IC₅₀ & Target	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 increases in cell firing ^[1] .

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.

Caution: Product has not been fully validated for medical applications. For research use only.

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