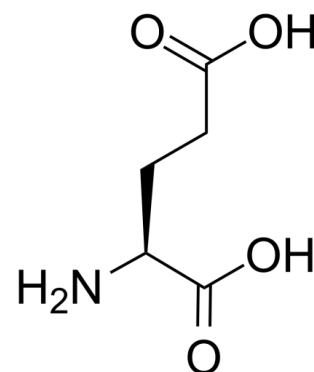


Data Sheet

Product Name:	(S)-Glutamic acid
Cat. No.:	CS-0003473
CAS No.:	56-86-0
Molecular Formula:	C ₅ H ₉ NO ₄
Molecular Weight:	147.13
Target:	Endogenous Metabolite; Ferroptosis; iGluR
Pathway:	Apoptosis; Membrane Transporter/Ion Channel; Metabolic Enzyme/Protease; Neuronal Signaling
Solubility:	H ₂ O : 6.25 mg/mL (42.48 mM; Need ultrasonic); DMSO : 2 mg/mL (13.59 mM; ultrasonic and warming and heat to 60°C)



BIOLOGICAL ACTIVITY:

(S)-Glutamic acid acts as an excitatory transmitter and an agonist at all subtypes of glutamate receptors (metabotropic, kainate, NMDA, and AMPA). (S)-Glutamic acid shows a direct activating effect on the release of **DA** from dopaminergic terminals. IC₅₀ & Target: DA^[1]. **In Vitro:** (S)-Glutamic acid (L-glutamic acid) could act on [³H]DA release through presynaptic glutamatergic receptors. L-glutamic acid (50 μM) still stimulated the release of [³H] DA in the presence of tetrodotoxin (0.5 μM)^[1].

References:

[1]. Giurgieff MF, et al. Presynaptic effect of L-glutamic acid on the release of dopamine in rat striatal slices. *Neurosci Lett.* 1977 Oct;6(1):73-7.

CAIndexNames:

L-Glutamic acid

SMILES:

OC(CC[C@H](N)C(=O)O)=O

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

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