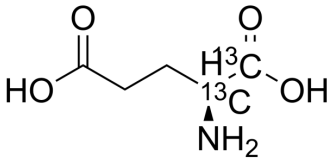
L-Glutamic acid-$^{13}C_2$

Cat. No.:	HY-14608S10
CAS No.:	115473-56-8
Molecular Formula:	$C_3{}^{13}C_2H_9NO_4$
Molecular Weight:	149.11
Target:	Apoptosis; iGluR; Ferroptosis; Endogenous Metabolite
Pathway:	Apoptosis; Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	L-Glutamic acid-$^{13}C_2$ is the ^{13}C labeled L-Glutamic acid[1]. L-Glutamic acid acts as an excitatory transmitter and an agonist at all subtypes of glutamate receptors (metabotropic, kainate, NMDA, and AMPA). L-Glutamic acid shows a direct activating effect on the release of DA from dopaminergic terminals[2].
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Giorgiueff 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.

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