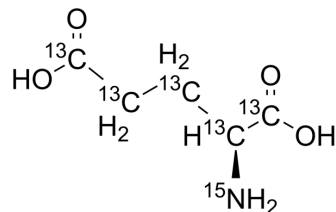


L-Glutamic acid-¹³C₅, ¹⁵N

Cat. No.:	HY-14608S3												
CAS No.:	202468-31-3												
Molecular Formula:	¹³ C ₅ H ₉ ¹⁵ NO ₄												
Molecular Weight:	153.09												
Target:	Apoptosis; iGluR; Ferroptosis; Endogenous Metabolite; Isotope-Labeled Compounds												
Pathway:	Apoptosis; Membrane Transporter/Ion Channel; Neuronal Signaling; Metabolic Enzyme/Protease; Others												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro

H₂O : 31.25 mg/mL (204.13 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent		Mass		
	Concentration		1 mg	5 mg	10 mg
	1 mM		6.5321 mL	32.6605 mL	65.3211 mL
	5 mM		1.3064 mL	6.5321 mL	13.0642 mL
	10 mM		0.6532 mL	3.2661 mL	6.5321 mL

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

BIOLOGICAL ACTIVITY

Description

L-Glutamic acid-¹³C₅, ¹⁵N is the ¹³C- and ¹⁵N-labeled L-Glutamic acid. 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.

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;53(2):211-216.

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

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