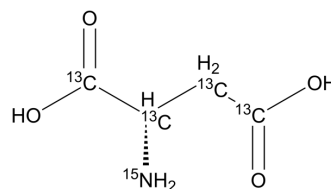


L-Aspartic acid-¹³C₄, ¹⁵N

Cat. No.:	HY-N0666S1
CAS No.:	202468-27-7
Molecular Formula:	¹³ C ₄ H ₇ ¹⁵ NO ₄
Molecular Weight:	138.07
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	4°C, protect from light, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light, stored under nitrogen)



SOLVENT & SOLUBILITY

In Vitro

1M NaOH : 100 mg/mL (724.27 mM; ultrasonic and adjust pH to 12 with NaOH)
 1 M NaOH : 100 mg/mL (724.27 mM; ultrasonic and adjust pH to 12 with NaOH)
 H₂O : 2 mg/mL (14.49 mM; ultrasonic and warming and heat to 60°C)
 H₂O : 2 mg/mL (14.49 mM; ultrasonic and warming and heat to 60°C)
 DMSO : 1 mg/mL (7.24 mM; ultrasonic and warming and heat to 80°C)
 DMSO : 1 mg/mL (7.24 mM; ultrasonic and warming and heat to 80°C)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	7.2427 mL	36.2135 mL	72.4270 mL
	5 mM	1.4485 mL	7.2427 mL	14.4854 mL
	10 mM	0.7243 mL	3.6214 mL	7.2427 mL

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

BIOLOGICAL ACTIVITY

Description

L-Aspartic acid-¹³C₄, ¹⁵N is the ¹³C-labeled and ¹⁵N-labeled L-Aspartic acid. L-Aspartic acid is an amino acid, shown to be a suitable proagent for colon-specific agent delivery.

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

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- [1]. Hosoya K, et al. Blood-brain barrier produces significant efflux of L-aspartic acid but not D-aspartic acid: in vivo evidence using the brain efflux index method. J Neurochem. 1999 Sep;73(3):1206-11.
- [2]. Leopold CS, et al. In vivo pharmacokinetic study for the assessment of poly(L-aspartic acid) as a drug carrier for colon-specific drug delivery. J Pharmacokinet Biopharm. 1995 Aug;23(4):397-406.
- [3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.
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Caution: Product has not been fully validated for medical applications. For research use only.

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