L-Arginine-1,2-$^{13}C_2$ hydrochloride

Cat. No.: HY-N0455AS5

CAS No.: 201740-75-2

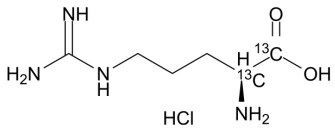
Molecular Formula: $C_4{}^{13}C_2H_{15}ClN_4O_2$

Molecular Weight: 212.65

Target: NO Synthase; Endogenous Metabolite; Isotope-Labeled Compounds

Pathway: Immunology/Inflammation; Metabolic Enzyme/Protease; Others

Storage: -20°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

DMSO : 100 mg/mL (470.26 mM; Need ultrasonic and warming)

Preparing Stock Solutions	Mass / Solvent / Concentration	1 mg	5 mg	10 mg
	1 mM	4.7026 mL	23.5128 mL	47.0256 mL
	5 mM	0.9405 mL	4.7026 mL	9.4051 mL
	10 mM	0.4703 mL	2.3513 mL	4.7026 mL

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

BIOLOGICAL ACTIVITY

Description

L-Arginine-1,2-$^{13}C_2$ (hydrochloride) is the ^{13}C-labeled L-Arginine hydrochloride. L-Arginine hydrochloride ((S)-(+)-Arginine hydrochloride) is the nitrogen donor for synthesis of nitric oxide, a potent vasodilator that is deficient during times of sickle cell crisis.

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.

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