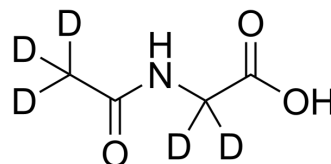


N-Acetylglycine-d₅

Cat. No.:	HY-Y0069S	
CAS No.:	1219805-82-9	
Molecular Formula:	C ₄ H ₂ D ₅ NO ₃	
Molecular Weight:	122.13	
Target:	Endogenous Metabolite; Isotope-Labeled Compounds	
Pathway:	Metabolic Enzyme/Protease; Others	
Storage:	Powder	-20°C 3 years
	In solvent	-80°C 6 months
		-20°C 1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 50 mg/mL (409.40 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	8.1880 mL	40.9400 mL	81.8800 mL
	5 mM	1.6376 mL	8.1880 mL	16.3760 mL
	10 mM	0.8188 mL	4.0940 mL	8.1880 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
Solubility: ≥ 2.5 mg/mL (20.47 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

N-Acetylglycine-d₅ is the deuterium labeled N-Acetylglycine. N-Acetylglycine (Aceturic acid) is a minor constituent of numerous foods with no genotoxicity or acute toxicity. N-acetylglycine is used in biological research of peptidomimetics.

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.
- [2]. Harper MS, et al. Toxicology studies with N-acetylglycine. *Food Chem Toxicol.* 2010 May;48(5):1321-7.
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Caution: Product has not been fully validated for medical applications. For research use only.

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