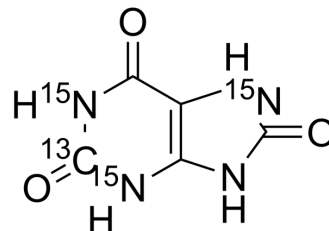


Uric acid-¹³C, ¹⁵N₃

Cat. No.:	HY-B2130S
CAS No.:	2421217-23-2
Molecular Formula:	C ₄ ¹³ CH ₄ N ¹⁵ ₃ O ₃
Molecular Weight:	172.08
Target:	Endogenous Metabolite; Reactive Oxygen Species
Pathway:	Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB
Storage:	4°C, sealed storage, away from moisture and light * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

1M NaOH : 8.33 mg/mL (48.41 mM; ultrasonic and warming and adjust pH to 12 with 1M NaOH and heat to 60°C)
 1 M NaOH : 8.33 mg/mL (48.41 mM; ultrasonic and warming and adjust pH to 12 with 1M NaOH and heat to 60°C)
 H₂O : 6.25 mg/mL (36.32 mM; ultrasonic and adjust pH to 10 with 1M NaOH)
 H₂O : 6.25 mg/mL (36.32 mM; ultrasonic and adjust pH to 10 with 1M NaOH)
 DMSO : 0.67 mg/mL (3.89 mM; Need ultrasonic)
 DMSO : 0.67 mg/mL (3.89 mM; Need ultrasonic)

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.8113 mL	29.0563 mL	58.1125 mL
	5 mM	1.1623 mL	5.8113 mL	11.6225 mL
	10 mM	0.5811 mL	2.9056 mL	5.8113 mL

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

BIOLOGICAL ACTIVITY

Description

Uric acid-¹³C,¹⁵N₃ is the ¹³C-labeled and ¹⁵N-labeled Uric acid. Uric acid, scavenger of oxygen radical, is a very important antioxidant that help maintains the stability of blood pressure and antioxidant stress. Uric acid can remove reactive oxygen species (ROS) such as singlet oxygen and peroxyxynitrite, inhibiting lipid peroxidation[1][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

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- [1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. *Ann Pharmacother.* 2019;53(2):211-216.
- [2]. Wang Q, et al. Recent Progress on Uric Acid Detection: A Review. *Crit Rev Anal Chem.* 2020;50(4):359-375.
- [3]. Yasutake Y, et al. Uric acid ameliorates indomethacin-induced enteropathy in mice through its antioxidant activity. *J Gastroenterol Hepatol.* 2017 Nov;32(11):1839-1845.
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Caution: Product has not been fully validated for medical applications. For research use only.

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