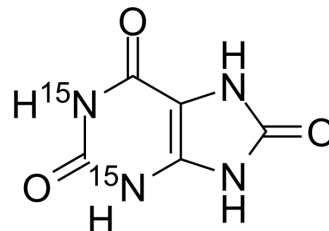


Uric acid-¹⁵N₂

Cat. No.:	HY-B2130S1		
CAS No.:	62948-75-8		
Molecular Formula:	C ₅ H ₄ N ₂ ¹⁵ N ₂ O ₃		
Molecular Weight:	170.1		
Target:	Endogenous Metabolite; Reactive Oxygen Species		
Pathway:	Metabolic Enzyme/Protease; Immunology/Inflammation; NF-κB		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

1M NaOH : 8.33 mg/mL (48.97 mM; ultrasonic and warming and adjust pH to 12 with 1M NaOH)
 1 M NaOH : 8.33 mg/mL (48.97 mM; ultrasonic and warming and adjust pH to 12 with 1M NaOH and heat to 60°C)
 1M NaOH : 8.33 mg/mL (48.97 mM; ultrasonic and warming and adjust pH to 12 with 1M NaOH and heat to 60°C)
 H₂O : 6.25 mg/mL (36.74 mM; ultrasonic and adjust pH to 10 with 1M NaOH)
 H₂O : 6.25 mg/mL (36.74 mM; ultrasonic and adjust pH to 10 with 1M NaOH)
 H₂O : 6.25 mg/mL (36.74 mM; ultrasonic and warming and adjust pH to 10 with 1M NaOH)
 DMSO : 0.67 mg/mL (3.94 mM; Need ultrasonic)
 DMSO : 0.67 mg/mL (3.94 mM; Need ultrasonic)

Solvent	Mass	Concentration		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	5.8789 mL	29.3945 mL	58.7889 mL
	5 mM	1.1758 mL	5.8789 mL	11.7578 mL
	10 mM	0.5879 mL	2.9394 mL	5.8789 mL

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

BIOLOGICAL ACTIVITY

Description

Uric acid-¹⁵N₂ is the ¹⁵N labeled Uric acid^[1]. 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 peroxynitrite, inhibiting lipid peroxidation^{[2][3]}.

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 Feb;53(2):211-216.
- [2]. 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.
- [3]. Wang Q, et al. Recent Progress on Uric Acid Detection: A Review. *Crit Rev Anal Chem*. 202050(4):359-375.
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Caution: Product has not been fully validated for medical applications. For research use only.

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