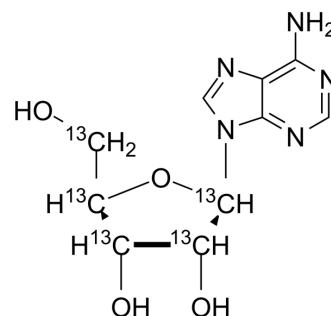


Adenosine-¹³C₅

Cat. No.:	HY-B0228S1		
CAS No.:	159496-13-6		
Molecular Formula:	C ₅ ¹³ C ₅ H ₁₃ N ₅ O ₄		
Molecular Weight:	272.2		
Target:	Apoptosis; Nucleoside Antimetabolite/Analog; Autophagy; Endogenous Metabolite		
Pathway:	Apoptosis; Cell Cycle/DNA Damage; Autophagy; Metabolic Enzyme/Protease		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 33.33 mg/mL (122.45 mM; Need ultrasonic)

H₂O : ≥ 6.67 mg/mL (24.50 mM)

* "≥" means soluble, but saturation unknown.

	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.6738 mL	18.3688 mL	36.7377 mL
	5 mM	0.7348 mL	3.6738 mL	7.3475 mL
	10 mM	0.3674 mL	1.8369 mL	3.6738 mL

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

BIOLOGICAL ACTIVITY

Description

Adenosine-¹³C₅ is the ¹³C labeled Adenosine[1]. Adenosine (Adenine riboside), a ubiquitous endogenous autacoid, acts through the enrollment of four G protein-coupled receptors: A1, A2A, A2B, and A3. Adenosine affects almost all aspects of cellular physiology, including neuronal activity, vascular function, platelet aggregation, and blood cell regulation[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.

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- [4]. Zhou XT, et al. Inhibition of autophagy enhances adenosine induced apoptosis in human hepatoblastoma HepG2 cells. *Oncol Rep.* 201941(2):829-838.
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Caution: Product has not been fully validated for medical applications. For research use only.

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