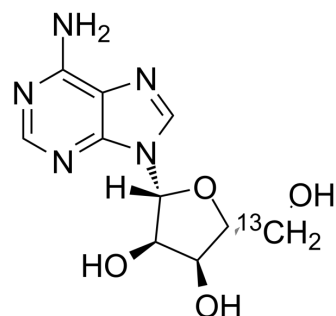


## Adenosine-<sup>13</sup>C

<b>Cat. No.:</b>	HY-B0228S5												
<b>CAS No.:</b>	54447-57-3												
<b>Molecular Formula:</b>	C <sub>9</sub> <sup>13</sup> CH <sub>13</sub> N <sub>5</sub> O <sub>4</sub>												
<b>Molecular Weight:</b>	268.23												
<b>Target:</b>	Apoptosis; Autophagy; Endogenous Metabolite; Nucleoside Antimetabolite/Analog												
<b>Pathway:</b>	Apoptosis; Autophagy; Metabolic Enzyme/Protease; Cell Cycle/DNA Damage												
<b>Storage:</b>	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
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 (124.26 mM; Need ultrasonic)  
 DMSO : 33.3 mg/mL (124.15 mM; Need ultrasonic and warming)  
 H<sub>2</sub>O : ≥ 6.67 mg/mL (24.87 mM)  
 H<sub>2</sub>O : ≥ 6.67 mg/mL (24.87 mM)  
 \* "≥" means soluble, but saturation unknown.

Concentration	Solvent	Mass		
		1 mg	5 mg	10 mg
Preparing Stock Solutions	1 mM	3.7281 mL	18.6407 mL	37.2814 mL
	5 mM	0.7456 mL	3.7281 mL	7.4563 mL
	10 mM	0.3728 mL	1.8641 mL	3.7281 mL

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

### BIOLOGICAL ACTIVITY

#### Description

Adenosine-<sup>13</sup>C is the <sup>13</sup>C labeled Adenosine. 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,

#### 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<sup>[1]</sup>.  
 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 Feb;53(2):211-216.

[2]. Borea PA, Gessi S, Merighi S, Vincenzi F, Varani K. Pharmacology of Adenosine Receptors: The State of the Art. *Physiol Rev*. 2018;98(3):1591-1625.;Fredholm BB. Adenosine, an endogenous distress signal, modulates tissue damage and repair. *Cell Death Differ*.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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