Inosine- $^{13}C_5$

Cat. No.:	HY-N0092S2				
Molecular Formula:	$C_5^{13}C_5H_{12}N_4O_5$				
Molecular Weight:	273.19				
Target:	Isotope-Labeled Compounds				
Pathway:	Others				
Storage:	Powder	-20°C	3 years		
		4°C	2 years		
	In solvent	-80°C	6 months		
		-20°C	1 month		

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SOLVENT & SOLUBILITY

In Vitro	DMSO : 10 mg/mL (36.60 mM; Need ultrasonic)						
	Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg		
		1 mM	3.6605 mL	18.3023 mL	36.6046 mL		
		5 mM	0.7321 mL	3.6605 mL	7.3209 mL		
		10 mM	0.3660 mL	1.8302 mL	3.6605 mL		
	Please refer to the solubility information to select the appropriate solvent.						
In Vivo	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 1 mg/mL (3.66 mM); Clear solution						
	2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1 mg/mL (3.66 mM); Clear solution						
	3. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1 mg/mL (3.66 mM); Clear solution						

DIOLOGICAL ACTIV	
Description	Inosine- $^{13}C_5$ is the $^{13}C_5$ labeled Inosine (HY-N0092).
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] . Inosine dose-dependently stimulates cAMP production mediated through the A _{2A} R ^[3] . ?Inosine dose-dependently induces hA _{2A} R-mediated ERK1/2 phosphorylation ^[3] . ?Inosine (100 μM; 24 hours) reduces oxidative stress in MES 23.5 cells cultured with astrocytes ^[4] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Product Data Sheet

HO_{_13}CH₂

H¹³C

 H^{13}

ÓН

0

¹³CH

ÓН

NH

REFERENCES

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-239.

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

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