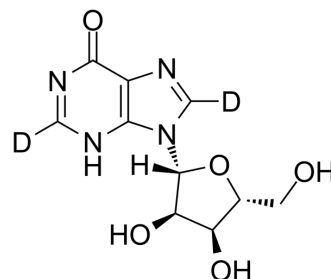


Inosine-2,8-d2

Cat. No.:	HY-N0092S
CAS No.:	697807-01-5
Molecular Formula:	C ₁₀ H ₁₀ D ₂ N ₄ O ₅
Molecular Weight:	270.24
Target:	Adenosine Receptor; Endogenous Metabolite
Pathway:	GPCR/G Protein; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Inosine-2,8-d2 is the deuterium labeled Inosine. Inosine is an endogenous purine nucleoside produced by catabolism of adenosine. Inosine has anti-inflammatory, antinociceptive, immunomodulatory and neuroprotective effects. Inosine is an agonist for adenosine A₁ (A₁R) and A_{2A} (A_{2A}R) receptors^{[1][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

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- [2]. Filipe Marques Gonçalves, et al. Signaling pathways underlying the antidepressant-like effect of inosine in mice. *Purinergic Signal.* 2017 Jun; 13(2): 203-214.
- [3]. Ajith A. Welihinda, et al. The adenosine metabolite inosine is a functional agonist of the adenosine A_{2A} receptor with a unique signaling bias. *Cell Signal.* 2016 Jun; 28(6): 552-560.
- [4]. Francisney Pinto Nascimento, et al. Adenosine A₁ receptor-dependent antinociception induced by inosine in mice: pharmacological, genetic and biochemical aspects. *Mol Neurobiol.* 2015;51(3):1368-78.
- [5]. Sara Cipriani, et al. Protection by inosine in a cellular model of Parkinson's disease. *Neuroscience.* 2014 Aug 22; 274: 242-249.

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

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