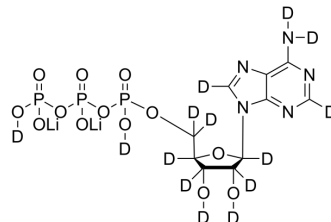


ATP-d₁₄ dilithium

Cat. No.:	HY-B2176S4
Molecular Formula:	C ₁₀ D ₁₄ Li ₂ N ₅ O ₁₃ P ₃
Molecular Weight:	533.13
Target:	Isotope-Labeled Compounds; Endogenous Metabolite
Pathway:	Others; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	ATP-d ₁₄ (Adenosine 5'-triphosphate-d ₁₄) dilithium is deuterium labeled ATP (HY-B2176). ATP (Adenosine 5'-triphosphate) is a central component of energy storage and metabolism in vivo. ATP provides the metabolic energy to drive metabolic pumps and serves as a coenzyme in cells. ATP is an important endogenous signaling molecule in immunity and inflammation.
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]. Swennen EL, et al. Immunoregulatory effects of adenosine 5'-triphosphate on cytokine release from stimulated whole blood. *Eur J Immunol*. 2005 Mar;35(3):852-8.
- [3]. M J L Bours, et al. Adenosine 5'-triphosphate and adenosine as endogenous signaling molecules in immunity and inflammation. *Pharmacol Ther*. 2006 Nov;112(2):358-404.
- [4]. Shuo Xu, et al. Doxycycline inhibits NAcT Leucine-rich repeat Protein 3 inflammasome activation and interleukin-1β production induced by Porphyromonas gingivalis-lipopolysaccharide and adenosine triphosphate in human gingival fibroblasts. *Arch Oral Biol*. 2019 Nov;107:104514.
- [5]. Yang Xiang, et al. Adenosine-5'-Triphosphate (ATP) Protects Mice against Bacterial Infection by Activation of the NLRP3 Inflammasome. *PLoS One*. 2013; 8(5): e63759.

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

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