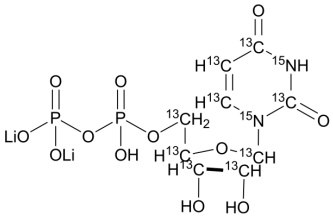
Uridine 5'-diphosphate-$^{13}C_9$,$^{15}N_2$ dilithium

Cat. No.:	HY-113359AS2
Molecular Formula:	$^{13}C_9H_{12}Li_2{}^{15}N_2O_{12}P_2$
Molecular Weight:	426.95
Target:	Isotope-Labeled Compounds; Endogenous Metabolite; P2Y Receptor
Pathway:	Others; Metabolic Enzyme/Protease; GPCR/G Protein
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Uridine 5'-diphosphate-$^{13}C_9$,$^{15}N_2$ dilithium is ^{13}C and ^{15}N-labeled Uridine 5'-diphosphate (HY-113359). Uridine 5'-diphosphate is a $P2Y_6$ receptor agonist with an EC_{50} of 0.013 μM for human $P2Y_6$ receptor.
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.

[2]. Ashleigh S Paparella, et al. Clostridioides difficile TcdB Toxin Glucosylates Rho GTPase by an SNi Mechanism and Ion Pair Transition State. ACS Chem Biol. 2022 Sep 16;17(9):2507-2518.

[3]. Besada P, et al. Structure-activity relationships of uridine 5'-diphosphate analogues at the human P2Y6 receptor. J Med Chem. 2006 Sep 7;49(18):5532-43.

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