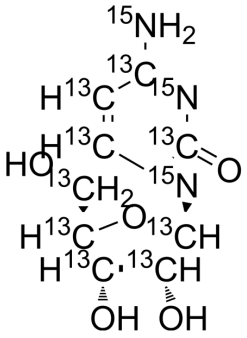
Cytidine-$^{13}C_9$,$^{15}N_3$

Cat. No.:	HY-B0158S5
CAS No.:	202406-79-9
Molecular Formula:	$^{13}C_9H_{13}{}^{15}N_3O_5$
Molecular Weight:	255.13
Target:	Nucleoside Antimetabolite/Analog; Endogenous Metabolite
Pathway:	Cell Cycle/DNA Damage; Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cytidine-$^{13}C_9$,$^{15}N_3$ is the ^{13}C and ^{15}N labeled Cytidine[1]. Cytidine is a pyrimidine nucleoside and acts as a component of RNA. Cytidine is a precursor of uridine. Cytidine controls neuronal-glial glutamate cycling, affecting cerebral phospholipid metabolism, catecholamine synthesis, and mitochondrial function[2][3][4].
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]. Jonas DA, et al. Safety considerations of DNA in food. Ann Nutr Metab. 2001;45(6):235-54.

[3]. Machado-Vieira R, et, al. New therapeutic targets for mood disorders. ScientificWorldJournal. 2010 Apr 1310:713-26.

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