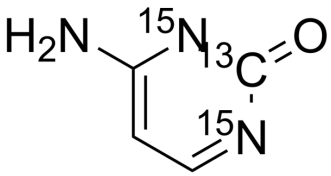
Cytosine-13C,15N2

Cat. No.:	HY-I0626S1
CAS No.:	181517-10-2
Molecular Formula:	$C_3{}^{13}CH_4N^{15}N_2O$
Molecular Weight:	113.07
Target:	Endogenous Metabolite
Pathway:	Metabolic Enzyme/Protease
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	Cytosine-$^{13}C,^{15}N_2$ is the ^{13}C and ^{15}N labeled Cytosine[1]. Cytosine is one of the four main bases found in DNA and RNA. Cytosine modifications exhibit circadian oscillations that are involved in epigenetic diversity and aging[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

[1]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-216.

[2]. Maxam AM, et, al. A new method for sequencing DNA. Proc Natl Acad Sci U S A. 1977 Feb;74(2):560-4.

[3]. Oh G, et, al. Cytosine modifications exhibit circadian oscillations that are involved in epigenetic diversity and aging. Nat Commun. 2018 Feb 139(1):644.

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