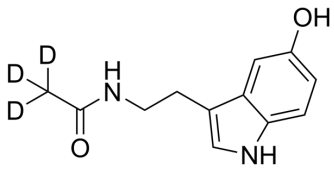
N-Acetyl-5-hydroxytryptamine-d_3

Cat. No.:	HY-107854S
CAS No.:	2001098-07-1
Molecular Formula:	$C_{12}H_{11}D_3N_2O_2$
Molecular Weight:	221.27
Target:	Trk Receptor; Endogenous Metabolite
Pathway:	Neuronal Signaling; Protein Tyrosine Kinase/RTK; Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years 4°C 2 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	N-Acetyl-5-hydroxytryptamine-d_3 is the deuterium labeled N-Acetyl-5-hydroxytryptamine. N-Acetyl-5-hydroxytryptamine is a Melatonin precursor, and that it can potently activate TrkB receptor[1][2].
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;53(2):211-216.

[2]. Jang SW, et al. N-acetylserotonin activates TrkB receptor in a circadian rhythm. Proc Natl Acad Sci U S A. 2010 Feb 23;107(8):3876-81.

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

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