

Product Data Sheet

3-Pentanol-d₅

Cat. No.: HY-W087988S

CAS No.: 144032-75-7

Molecular Formula: $C_5H_7D_5O$

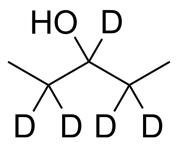
Molecular Weight: 93.18

Target: Bacterial

Pathway: Anti-infection

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.



BIOLOGICAL ACTIVITY

Description	3-Pentanol- d_5 is the deuterium labeled 3-Pentanol[1]. 3-Pentanol is an active organic compound produced by plants and is a component of emitted insect sex pheromones. 3-pentanol elicits plant immunity against microbial pathogens and an insect pest in crop plants[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 Feb;53(2):211-216.

[2]. Geun C Song, et al. Gaseous 3-pentanol primes plant immunity against a bacterial speck pathogen, Pseudomonas syringae pv. tomato via salicylic acid and jasmonic acid-dependent signaling pathways in Arabidopsis. Front Plant Sci. 2015 Oct 6;6:821.

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