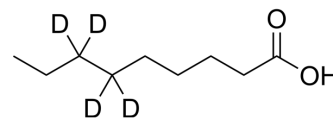


## Nonanoic acid-d<sub>4</sub>

Cat. No.:	HY-N7057S2
CAS No.:	1219795-27-3
Molecular Formula:	C <sub>9</sub> H <sub>14</sub> D <sub>4</sub> O <sub>2</sub>
Molecular Weight:	162.26
Target:	Bacterial; Isotope-Labeled Compounds
Pathway:	Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

Description	Nonanoic acid-d <sub>4</sub> is the deuterium labeled Nonanoic acid. Nonanoic acid is a naturally-occurring saturated fatty acid with nine carbon atoms. Nonanoic acid significantly reduces bacterial translocation, enhances antibacterial activity, and remarkably increases the secretion of porcine β-defensins 1 (pBD-1) and pBD-2[1].
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 <sup>[1]</sup> . 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]. Wang J, et al. Caprylic acid and nonanoic acid upregulate endogenous host defense peptides to enhance intestinal epithelial immunological barrier function via histone deacetylase inhibition. *Int Immunopharmacol*. 2018 Dec;65:303-311.

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

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