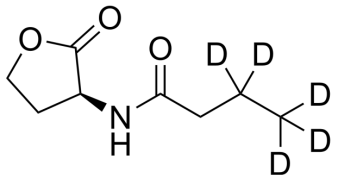
N-butyryl-L-Homoserine lactone-d_5

Cat. No.:	HY-114816S
CAS No.:	2701379-46-4
Molecular Formula:	$C_8H_8D_5NO_3$
Molecular Weight:	176.22
Target:	ADC Linker; Bacterial; Isotope-Labeled Compounds
Pathway:	Antibody-drug Conjugate/ADC Related; Anti-infection; Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	N-butyryl-L-Homoserine lactone-d_5 is the deuterium labeled N-Butanoyl-L-homoserine lactone. N-Butanoyl-L-homoserine lactone (C4-HSL) is a cleavable ADC linker used in the synthesis of antibody-drug conjugates (ADCs). N-Butanoyl-L-homoserine lactone has antibacterial activity and is used in antibacterial biofilm[1]. N-Butanoyl-L-homoserine lactone aptamers blocks qurom sensing and inhibits biofilm formation in Pseudomonas aeruginosa[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;53(2):211-216.

[2]. Keith Alan Charlton, et al. Methods for the Treatment of an Infectious Bacterial Disease with an Anti-Lactone or Lactone Derived Signal Molecules Antibody. US20130045208A1

[3]. Zhao M, et al. C4-HSL aptamers for blocking qurom sensing and inhibiting biofilm formation in Pseudomonas aeruginosa and its structure prediction and analysis. PLoS One. 2019 Feb 19;14(2):e0212041.

[4]. Feng Sun, et al. Advance of the diversity of bacterial quorum sensing and quorum quenching. National Natural Science Foundation of China. Published online 9 October 2018.

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