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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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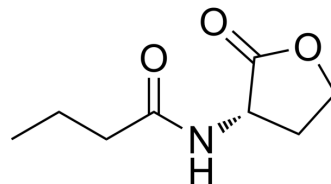
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N-Butanoyl-L-homoserine lactone

Cat. No.:	HY-114816		
CAS No.:	67605-85-0		
Molecular Formula:	C ₈ H ₁₃ NO ₃		
Molecular Weight:	171.19		
Target:	ADC Linker; Bacterial		
Pathway:	Antibody-drug Conjugate/ADC Related; Anti-infection		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (584.15 mM; Need ultrasonic)
 H₂O : 20 mg/mL (116.83 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	5.8415 mL	29.2073 mL	58.4146 mL
	5 mM	1.1683 mL	5.8415 mL	11.6829 mL
	10 mM	0.5841 mL	2.9207 mL	5.8415 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (14.60 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (14.60 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (14.60 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

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 quorum sensing and inhibits biofilm formation in *Pseudomonas aeruginosa*^{[2][3]}.

IC₅₀ & Target

Cleavable

In Vitro

The dissociation constant (K_d value) of aptamer binding to N-Butanoyl-L-homoserine lactone (C4-HSL) is 28.47 nM^[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. 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
- [2]. Zhao M, et al. C4-HSL aptamers for blocking quorum sensing and inhibiting biofilm formation in *Pseudomonas aeruginosa* and its structure prediction and analysis. PLoS One. 2019 Feb 19;14(2):e0212041.
- [3]. 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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Caution: Product has not been fully validated for medical applications. For research use only.

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