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Lieferung & Zahlungsart

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Zuschläge

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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

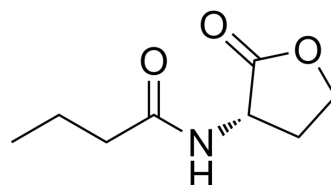
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

N-Butanoyl-L-homoserine lactone

Cat. No.:	HY-114816
CAS No.:	67605-85-0
Molecular Formula:	C ₈ H ₁₃ NO ₃
Molecular Weight:	171.2
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 (584.13 mM; Need ultrasonic)

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

Preparing Stock Solutions	Solvent	Mass	1 mg	5 mg	10 mg
	Concentration				
	1 mM		5.8413 mL	29.2063 mL	58.4126 mL
	5 mM		1.1683 mL	5.8413 mL	11.6825 mL
	10 mM		0.5841 mL	2.9206 mL	5.8413 mL

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

In Vivo

1. 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

2. 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

3. 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 <i>Pseudomonas aeruginosa</i> ^{[2][3]} .
IC ₅₀ & Target	Cleavable Linker

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.

CUSTOMER VALIDATION

- BMC Infect Dis. 2024 Jul 31;24(1):760.

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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.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA