

Product Name: Click *N*-Acetylmuramic acid - alkyne

Catalog No.: 6798

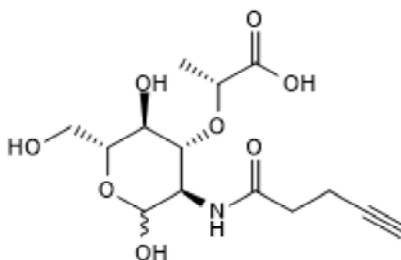
Batch No.: 2

CAS Number: 2245794-65-2

IUPAC Name: (2*R*)-2-(((3*R*,4*R*,5*S*,6*R*)-2,5-dihydroxy-6-(hydroxymethyl)-3-(pent-4-ynamido)tetrahydro-2*H*-pyran-4-yl)oxy)propanoic acid

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₄ H ₂₁ NO ₈
Batch Molecular Weight:	331.32
Physical Appearance:	Off-white solid
Solubility:	water to 100 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 97.8% purity
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com

techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com

Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors

Tel: +1 612 379 2956

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Description:

Derivative of *N*-acetylmuramic acid (NAM) component of bacterial peptidoglycans. Incorporated into bacterial peptidoglycans during biosynthesis. Suitable for fluorescent labeling of peptidoglycans when 'click'-conjugated to a fluorescent dye.

Physical and Chemical Properties:

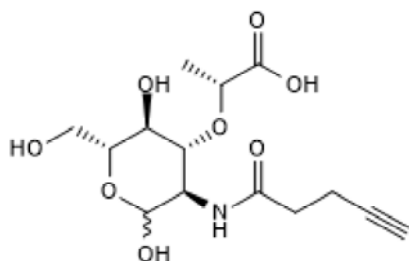
Batch Molecular Formula: C₁₄H₂₁NO₈

Batch Molecular Weight: 331.32

Physical Appearance: Off-white solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

DeMeester et al (2018) Synthesis of functionalized *N*-Acetyl muramic acids to probe bacterial cell wall recycling and biosynthesis. *J.Am.Chem.Soc* **140** 9458. PMID: 29986130.

Liang et al (2017) Metabolic labelling of the carbohydrate core in bacterial peptidoglycan and its applications. *Nat.Commun.* **8** 15015. PMID: 28425464.

Storage: Store at -20°C. This product is packaged under an inert atmosphere.

Solubility & Usage Info:

water to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from the University of Delaware

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North America

Tel: (800) 343 7475

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