bio-techne
TOCRIS

Print Date: Mar 13th 2024

Certificate of Analysis

www.tocris.com

Product Name: **β-GalNAc-PEG4-Azide** **Catalog No.: 7780** **Batch No.: 1**

CAS Number: 879004-92-9

IUPAC Name: 2-[2-[2-(2-Azidoethoxy)ethoxy]ethoxy]ethyl 2-(acetylamino)-2-deoxy-β-D-galactopyranoside

1. PHYSICAL AND CHEMICAL PROPERTIES

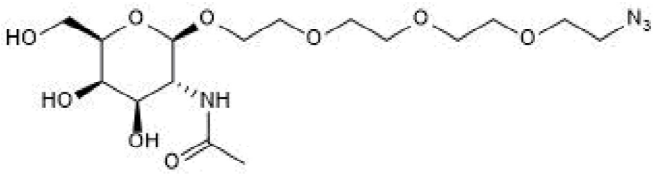
Batch Molecular Formula: $C_{16}H_{30}N_4O_9.¼H_2O$

Batch Molecular Weight: 426.94

Physical Appearance: Colourless wax

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 94.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	45.01	7.2	13.12
Found	44.92	7.31	12.62

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:

β-GalNAc-PEG4-Azide is a functionalized asialoglycoprotein receptor (ASGPR) ligand for lysosomal targeting chimera (LYTAC) research and development; incorporates a single ASGPR ligand with a PEG4 linker and azide group reactive handle ready for conjugation. It can be used as a building block for multivalent compounds to enhance ASGPR binding. Upon binding to ASGPR, β-GalNAc conjugates are efficiently internalized via ASGPR-mediated endocytosis. β-GalNAc conjugation can be employed as a strategy to effectively deliver cargo such as RNA or Cas9 complexes in a cell-specific manner to hepatocytes. Can be used to generate LYTACs, or... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

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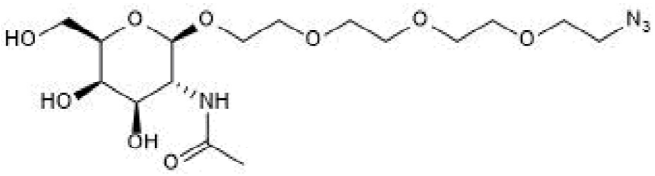
Batch Molecular Weight: 426.94

Physical Appearance: Colourless wax

Minimum Purity: ≥95%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

This product is supplied in lyophilized form. It may appear as a solid, gel or film and be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

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. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

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.

References:

Sanhueza *et al* (2017) Efficient liver targeting by polyvalent display of a compact ligand for the asialoglycoprotein receptor. J.Am.Chem.Soc. ***139*** 3528. PMID: 28230359.