

# Certificate of Analysis

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**Product Name:** tri-GalNAc-PEG3-Azide

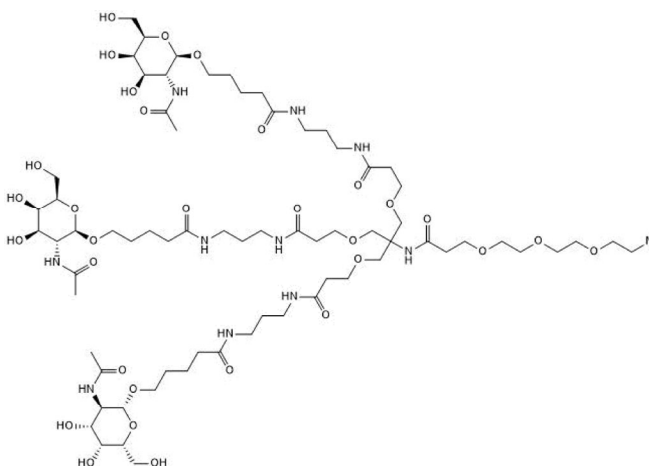
**Catalog No.:** 8015

**Batch No.:** 1

**CAS Number:** 2925590-71-0

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>70</sub>H<sub>125</sub>N<sub>13</sub>O<sub>31</sub>  
**Batch Molecular Weight:** 1644.83  
**Physical Appearance:** Colourless lyophilised film  
**Solubility:** water to 5 mg/ml  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 97.1% purity  
**Mass Spectrum:** Consistent with structure

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

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Tel: +1 612 379 2956

**Product Name:** tri-GalNAc-PEG3-Azide

**Catalog No.:** 8015

**1**

**CAS Number:** 2925590-71-0

**Description:**

tri-GalNAc-PEG3-Azide is a functionalized asialoglycoprotein receptor (ASGPR) ligand for lysosomal targeting chimera (LYTAC) research and development; each molecule incorporates three ASGPR ligands with a PEG3 linker and azide group reactive handle ready for conjugation. Upon binding to the ASGPR, tri-GalNAc conjugates are efficiently internalized via ASGPR-mediated endocytosis. tri-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 labeled with dye for tissue imaging.

**Physical and Chemical Properties:**

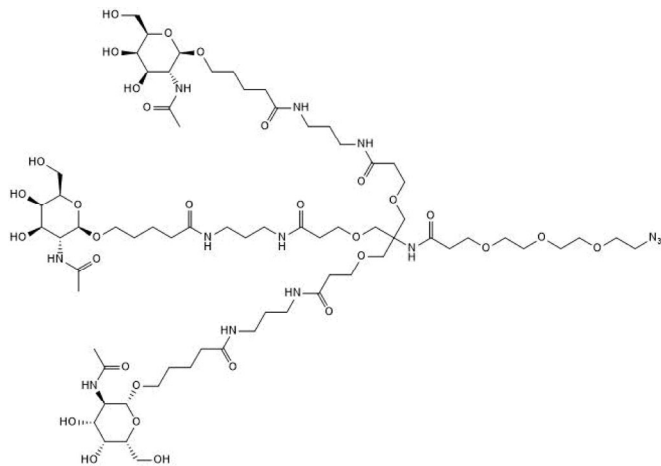
Batch Molecular Formula: C<sub>70</sub>H<sub>125</sub>N<sub>13</sub>O<sub>31</sub>

Batch Molecular Weight: 1644.83

Physical Appearance: Colourless lyophilised film

**Minimum Purity:** ≥90%

**Batch Molecular Structure:**



**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.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

water to 5 mg/ml

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.

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