

**Product Name:** preQ<sub>1</sub>-alkyne

**Catalog No.:** 7806

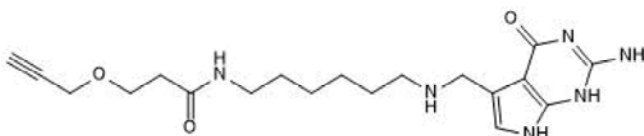
**Batch No.:** 1

CAS Number: 2771096-76-3

IUPAC Name: *N*-[6-[[[(2-Amino-4,7-dihydro-4-oxo-3*H*-pyrrolo[2,3-*d*]pyrimidin-5-yl)methyl]amino]hexyl]-3-(2-propyn-1-yloxy)propanamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

<b>Batch Molecular Formula:</b>	C <sub>19</sub> H <sub>28</sub> N <sub>6</sub> O <sub>3</sub>
<b>Batch Molecular Weight:</b>	388.47
<b>Physical Appearance:</b>	White solid
<b>Solubility:</b>	DMSO to 100 mM
<b>Storage:</b>	Store at -20°C
<b>Batch Molecular Structure:</b>	



## 2. ANALYTICAL DATA

<b>HPLC:</b>	Shows 97.0% purity
<b><sup>1</sup>H NMR:</b>	Consistent with structure
<b>Mass Spectrum:</b>	Consistent with structure

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

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1

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**Description:**

preQ<sub>1</sub>-alkyne is a modified analog of the natural substrate prequeosine1 (preQ1). It contains alkyne handle that enables users to attach additional groups to preQ1 via Cu(I)-catalyzed azide-alkyne cycloaddition (CuAAC) click chemistry. It can be used to generate photoactivatable probes that can control CRISPR gene editing via the RNA-TAG method. Other RNA-TAG toolbox compounds include preQ1-biotin (Cat. No. 7804) Plasmids for expression of the E.coli TGT enzyme (#138201) and for cloning an RNA of interest into a vector containing the recognition motif at the 3' end (#138209) are available from Addgene. Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**

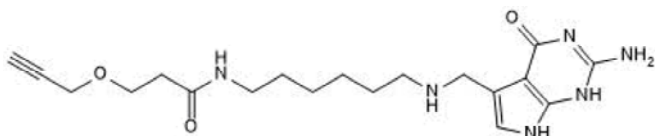
Batch Molecular Formula: C<sub>19</sub>H<sub>28</sub>N<sub>6</sub>O<sub>3</sub>

Batch Molecular Weight: 388.47

Physical Appearance: White solid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**



**References:**

Zhang *et al* (2022) Site-specific and enzymatic cross-linking of sgRNA enables wavelength-selectable photoactivated control of CRISPR gene editing. *J.Am.Chem.Soc.* **144** 4487. PMID: 35257575.

**Storage:** Store at -20°C

**Solubility & Usage Info:**

DMSO 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 Regents of the University of California.

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