

Certificate of Analysis

www.tocris.com

Product Name: preQ₁-azide

Catalog No.: 7833

Batch No.: 1

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

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: C₁₈H₂₉N₉O₃·2½H₂O

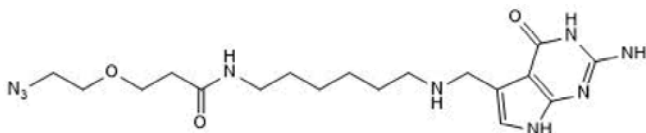
Batch Molecular Weight: 464.53

Physical Appearance: White solid

Solubility: DMSO to 100 mM
ethanol to 50 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.7% purity

¹H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	46.54	7.38	27.14
Found	46.01	7.08	27.12

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

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

Description:

preQ₁-azide is a modified analog of the natural substrate prequeosine1 (preQ1). It contains an azide handle allowing attachment of additional groups to preQ1 via Cu(I)-catalyzed azide-alkyne cycloaddition (CuAAC) click chemistry. preQ₁-azide is a toolbox compound for RNA-TAG (transglycosylation at guanosine). Other RNA-TAG toolbox compounds include preQ1-biotin (Cat. No. 7804) and preQ₁-alkyne (Cat. No. 7806) 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:

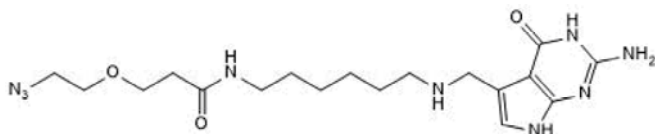
Batch Molecular Formula: C₁₈H₂₉N₉O₃.2½H₂O

Batch Molecular Weight: 464.53

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

ethanol to 50 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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