

# Certificate of Analysis

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**Product Name:** NAIA

**Catalog No.:** 8910

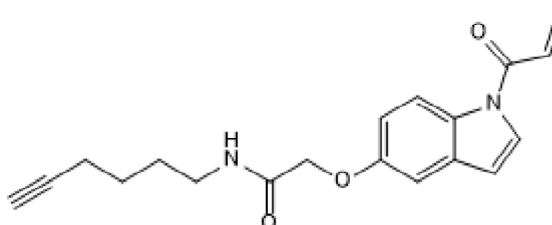
**Batch No.:** 1

CAS Number: 3020685-33-7

IUPAC Name: *N*-5-Hexyn-1-yl-2-[[1-(1-oxo-2-propen-1-yl)-1*H*-indol-5-yl]oxy]acetamide

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>19</sub>H<sub>20</sub>N<sub>2</sub>O<sub>3</sub>.  
**Batch Molecular Weight:** 324.38  
**Physical Appearance:** White solid  
**Solubility:** DMSO to 100 mM  
**Storage:** Store at -20°C  
**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**HPLC:** Shows 98.0% purity  
**<sup>1</sup>H NMR:** Consistent with structure  
**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon	Hydrogen	Nitrogen
Theoretical	70.35	6.21	8.64
Found	70.27	6.28	8.68

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

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**Description:**

NAIA (N-Acryloylindole-alkyne) is a broad-spectrum cysteine reactive probe enabling cysteine profiling and imaging. It covalently binds cysteine residues in proteins. Displays faster reaction kinetics with CYS ( $k > 10^2 \text{ M}^{-1} \text{ s}^{-1}$ ) and targets an expanded pool of ligandable cysteines and proteins compared to IA-Alkyne (Cat. No. 7015). Also shows higher stability and selectivity for CYS over SER and LYS than IA-Alkyne (Cat. No. 7015). NAIA is used in chemoproteomics experiments as a click-chemistry handle to attach a fluorophore or biotin to reactive cysteines in proteins for visualization by in-gel fluorescence or identification by mass sp... Please see product specific page on [www.tocris.com](http://www.tocris.com) for full description.

**Physical and Chemical Properties:**

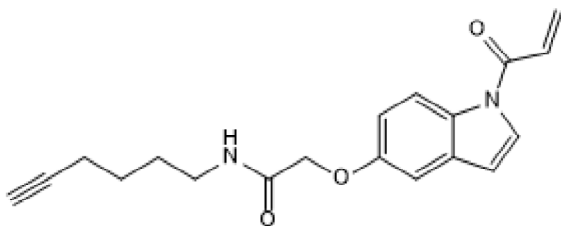
Batch Molecular Formula:  $\text{C}_{19}\text{H}_{20}\text{N}_2\text{O}_3$ .

Batch Molecular Weight: 324.38

Physical Appearance: White solid

**Minimum Purity:** ≥95%

**Batch Molecular Structure:**



**References:**

**Koo et al** (2023) N-Acryloylindole-alkyne (NAIA) enables imaging and profiling new ligandable cysteines and oxidized thiols by chemoproteomics. *Nat. Commun* **14** 3564. PMID: 37322008.

**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. \*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.

**Licensing Information:**

Sold under license from Versitech Limited

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