

Certificate of Analysis

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Product Name: Deazaflavin, Alkyne

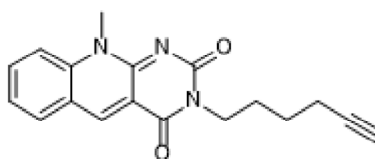
Catalog No.: 8986

Batch No.: 1

IUPAC Name: 3-(Hex-5-yn-1-yl)-10-methylpyrimido[4,5-*b*]quinoline-2,4(3*H*,10*H*)-dione

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula:	C ₁₈ H ₁₇ N ₃ O ₂
Batch Molecular Weight:	307.35
Physical Appearance:	Yellow solid
Solubility:	DMSO to 10 mM
Storage:	Store at -20°C
Batch Molecular Structure:	



2. ANALYTICAL DATA

HPLC:	Shows 98.9% purity at 395 nm
¹H NMR:	Consistent with structure
Mass Spectrum:	Consistent with structure
UV Spectrum:	Consistent with structure
λ_{max}:	385 nm (PBS + 2% DMSO)
λ_{ex}:	394 nm (PBS + DMSO)
λ_{em}:	461 nm (PBS + DMSO)

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

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Description:

Deazaflavin, Alkyne is a deazaflavin-based organic photocatalyst bearing a terminal alkyne functional group for use in bioorthogonal conjugation strategies such as copper-catalyzed azide-alkyne cycloaddition (CuAAC). Upon blue light illumination (~450 nm), the deazaflavin photocatalyst undergoes excitation and enables Dexter-type triplet energy transfer to nearby photoactivatable functional groups such as diazirines or aryl azides, leading to covalent labeling of proximal proteins or biomolecules. When tethered to a targeting ligand, peptide, or macromolecule via the alkyne handle, the reagent allows proximity-dependent photolabeling in live ... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

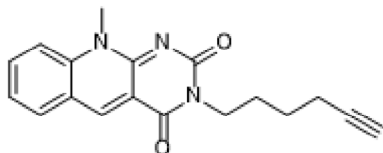
Batch Molecular Formula: C₁₈H₁₇N₃O₂

Batch Molecular Weight: 307.35

Physical Appearance: Yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



References:

Crocker et al (2025) Energy-transfer photoproximity labelling in live cells using an organic cofactor. *Nat.Chem.* doi: 10.1038. PMID: 40962911.

Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 10 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.

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