bio-techne
TOCRIS

Print Date: Nov 27th 2025

Certificate of Analysis

www.tocris.com

Product Name: **Deazaflavin, Haloalkane** **Catalog No.: 8987** **Batch No.: 1**

IUPAC Name: *N*-(2-(2-((6-Chlorohexyl)oxy)ethoxy)ethyl)-2-(10-methyl-2,4-dioxo-4,10-dihydropyrimido[4,5-*b*]quinolin-3(2*H*)-yl) acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{24}H_{31}ClN_4O_5$

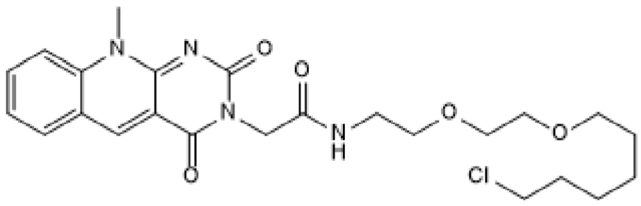
Batch Molecular Weight: 490.99

Physical Appearance: Yellow solid

Solubility: DMSO to 10 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 97.3% purity at 395 nm

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

UV Spectrum: Consistent with structure

λ_{max}: 390 nm (PBS + 2% DMSO)

λ_{ex}: 394 nm (PBS + DMSO)

λ_{em}: 462 nm (PBS + DMSO)

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Description:

Deazaflavin, Haloalkane is a deazaflavin-based organic photocatalyst covalently linked to a chloroalkane ligand via a short PEG linker. The conjugate enables site-specific tethering of the photocatalyst to proteins genetically fused to HaloTag® in live-cell systems. Upon blue light illumination (~450 nm), the deazaflavin moiety transfers energy to nearby photoactivatable probes (e.g., diazirines, aryl azides), initiating localized covalent labeling of biomolecules in the immediate vicinity of the HaloTag® fusion protein. The process is dependent on light exposure, the presence of the reactive probe, and spatial proximity to the tethe... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

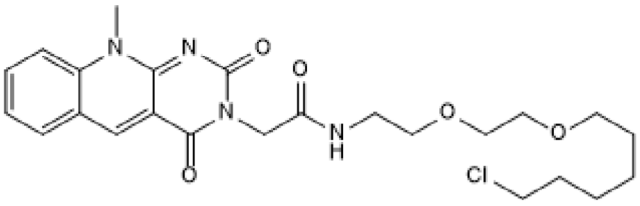
Batch Molecular Formula: $C_{24}H_{31}ClN_4O_5$

Batch Molecular Weight: 490.99

Physical Appearance: Yellow solid

Minimum Purity: ≥95%

Batch Molecular Structure:



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.

References:

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