bio-techne
TOCRIS

Print Date: Mar 19th 2026

Certificate of Analysis

www.tocris.com

Product Name: **Biotin-PEG4-Diazirine** **Catalog No.: 8994** **Batch No.: 1**

IUPAC Name: 1-(5-((3a*S*,4*S*,6a*R*)-2-Oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanamido)-*N*-(4-(3-(trifluoromethyl)-3*H*-diazirin-3-yl)benzyl)-3,6,9,12-tetraoxapentadecan-15-amide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{30}H_{43}F_3N_6O_7S$

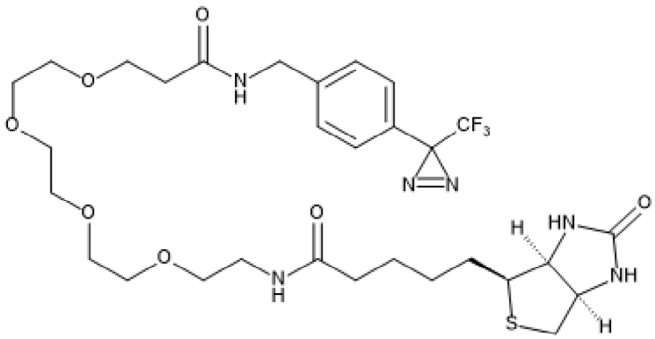
Batch Molecular Weight: 688.75

Physical Appearance: White solid

Solubility: DMSO to 50 mM with gentle warming

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 96.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	52.31	6.29	12.2
Found	51.86	6.22	11.93

bio-techne.com
info@bio-techne.com
techsupport@bio-techne.com

North America
Tel: (800) 343 7475

China
info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa
Tel: +44 (0)1235 529449

Rest of World
www.tocris.com/distributors
Tel:+1 612 379 2956

Product Name: **Biotin-PEG4-Diazirine** **Catalog No.: 8994** **Batch No.: 1**

IUPAC Name: 1-(5-((3a*S*,4*S*,6a*R*)-2-Oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanamido)-*N*-(4-(3-(trifluoromethyl)-3*H*-diazirin-3-yl)benzyl)-3,6,9,12-tetraoxapentadecan-15-amide

Description:

Key information:Biotin-PEG4-Diazirine is a cell-permeable photo-crosslinking probe for elucidating protein interactome of polyarginine cell-penetrating peptides and mapping cell surfaceome through deazaflavin-diazirine energy-transfer labelling (DarT labelling). Upon UV irradiation and in the presence of deazaflavin as an organic photocatalyst, the diazirine group is activated to a reactive carbene that covalently crosslinks to nearby proteins. The appended biotin handle allows for efficient affinity-based detection, pull-down, and isolation of tagged proteins from complex mixtures such as cell lysates. Suitable for live-cell applications. U... Please see product specific page on www.tocris.com for full description.

Physical and Chemical Properties:

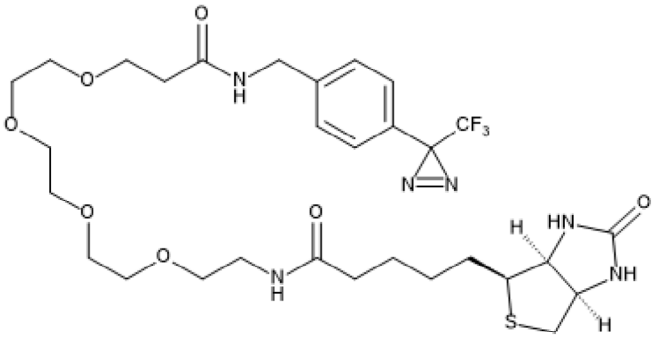
Batch Molecular Formula: $C_{30}H_{43}F_3N_6O_7S$

Batch Molecular Weight: 688.75

Physical Appearance: White 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 50 mM with gentle warming

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. Nature Chemistry ***17*** 1928. PMID: 40962911.