

PRODUCT INFORMATION



Biotin-PEG₃-azide

Item No. 23419

CAS Registry No.: 875770-34-6

Formal Name: (3aS,4S,6aR)-N-[2-[2-[2-(2-azidoethoxy)ethoxy]ethoxy]ethyl]hexahydro-2-oxo-1H-thieno[3,4-d]imidazole-4-pentanamide

Synonym: Azide-PEG₃-biotin

MF: C₁₈H₃₂N₆O₅S

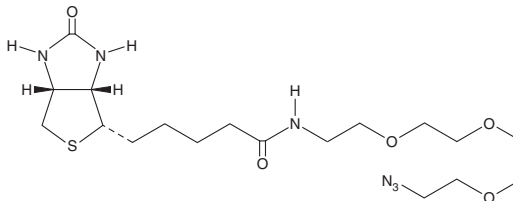
FW: 444.5

Purity: ≥95%

Supplied as: A crystalline solid

Storage: -20°C

Stability: ≥2 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Biotin-PEG₃-azide is supplied as a crystalline solid. A stock solution may be made by dissolving the biotin-PEG₃-azide in the solvent of choice. Biotin-PEG₃-azide is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of biotin-PEG₃-azide in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of biotin-PEG₃-azide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of biotin-PEG₃-azide in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Biotin-PEG₃-azide is a PEGylated version of biotin-azide (Item No. 13040) that is more hydrophilic due to the incorporation of a PEGylated spacer. It can be used to label terminal alkynes *via* copper-catalyzed click reactions or copper-free click reactions with cyclooctynes.^{1,2} Biotin-PEG₃-azide has been used to non-enzymatically and covalently tag proteins, which can be separated and detected using common laboratory methods such as SDS-PAGE and Western blot.³ It can be used in combination with other protein tags. Biotin-PEG₃-azide has also been used in nanostructured biointerfaces to study ligand and receptor spacing when there are different signaling molecules present.¹

References

1. Schenk, F.C., Boehm, H., Spatz, J.P., *et al.* Dual-functionalized nanostructured bio-interfaces by click chemistry. *Langmuir* **30**(23), 6897-6905 (2014).
2. Nonaka, H., Tsukiji, S., Ojida, A., *et al.* Non-enzymatic covalent protein labeling using a reactive tag. *J. Am. Chem. Soc.* **129**(51), 15777-15779 (2007).
3. Lluís, M., Wang, Y., Monzingo, A.F., *et al.* Characterization of C-alkyl amidines as bioavailable covalent reversible inhibitors of human DDAH-1. *Chem. Med. Chem.* **6**(1), 81-88 (2011).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/21/2018

CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM