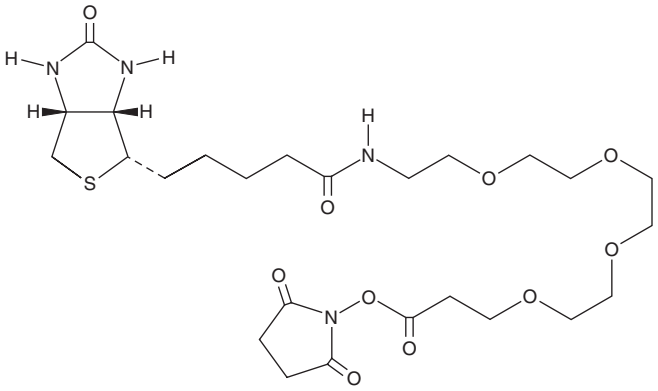
PRODUCT INFORMATION

Biotin-PEG_4-NHS

Item No. 29114



CAS Registry No.:	459426-22-3
Formal Name:	21-[(3aS,4S,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-17-oxo-4,7,10,13-tetraoxa-16-azaheneicosanoic acid, 2,5-dioxo-1-pyrrolidinyl ester
Synonyms:	NHS-PEO_4-Biotin, NHS-PEG_4-Biotin
MF:	$C_{25}H_{40}N_4O_{10}S$
FW:	588.7
Purity:	≥90%
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

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

Laboratory Procedures

Biotin-PEG_4-NHS is supplied as a solid. A stock solution may be made by dissolving the biotin-PEG_4-NHS in the solvent of choice, which should be purged with an inert gas. Biotin-PEG_4-NHS is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of biotin-PEG_4-NHS in these solvents is approximately 30 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-PEG_4-NHS can be prepared by directly dissolving the solid in aqueous buffers. The solubility of biotin-PEG_4-NHS in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Biotin-PEG_4-NHS is an amine reactive reagent that contains biotin linked *via* a four-unit PEG spacer to N-hydroxysuccinimide (NHS), which facilitates the coupling of biotin to primary amines.[1] Biotin-PEG_4-NHS has been used in the biotinylation of proteins and antibodies.[2,3]

References

1. Smith, G.P. Kinetics of amine modification of proteins. *Bioconjug. Chem.* **17(2)**, 501-506 (2006).
2. Evison, B.J., Palmer, J.T., Lambert, G., *et al.* A small molecule inhibitor of PCSK9 that antagonizes LDL receptor binding via interaction with a cryptic PCSK9 binding groove. *Bioorg. Med. Chem.* **28(6)**, 115344 (2020).
3. Rajendran, M., Sun, W., Comella, P., *et al.* An immuno-assay to quantify inflyenza virus hemagglutinin with correctly folded stalk domains in vaccine preparations. *PLoS ONE* **13(4)**, e0194830 (2018).

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