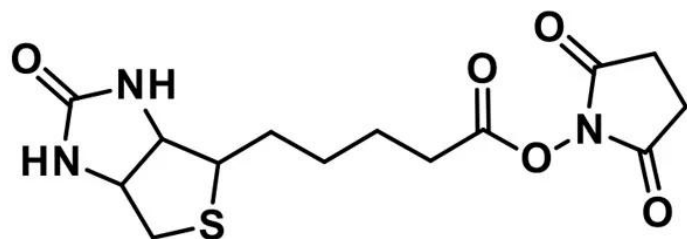


# NHS-BIOTIN

**SKU:** QBD-10205



NHS-biotin, product number QBD-10205, is a classic, non-dPEG® biotinylation reagent. NHS-biotin (2,5-dioxopyrrolidin-1-yl 5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoate, CAS number 35013-72-0) is the N-hydroxysuccinimide ester of biotin and reacts with free primary amines. It is useful for labeling proteins, peptides, surfaces (such as silica, glass, or magnetic particles) coated with primary amines, and the like. It can also be used with amine-terminated dPEG® products to create novel biotinylated dPEG® products.

## Description

"NHS-biotin, product number QBD-10205, is a classic, non-dPEG® biotinylation reagent. Biotin (5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoic acid, CAS number 58-85-5) is a water-soluble vitamin, though it is not especially soluble in water and is used in a wide range of biotechnology and clinical applications. NHS-biotin (2,5-dioxopyrrolidin-1-yl 5-((3aS,4S,6aR)-2-oxohexahydro-1H-thieno[3,4-d]imidazol-4-yl)pentanoate, CAS number 35013-72-0) is the N-hydroxysuccinimide ester of biotin. The NHS ester is reactive with free primary amines. It is useful for labeling proteins, peptides, surfaces (such as silica, glass, or magnetic particles) coated with primary amines, and the like. It can also be used with amine-terminated dPEG® products to create novel biotinylated dPEG® products.

NHS-biotin, QBD-10205, is insoluble in water, but the NHS ester hydrolyzes if the product gets wet. The optimal storage temperature of NHS-biotin is -20°C. When removed from storage, NHS-biotin should be allowed to equilibrate fully to ambient temperature before opening the bottle. The product should always be handled to minimize exposure to moisture. NHS-biotin dissolves in N,N'-dimethylacetamide (DMAC) or dimethylsulfoxide (DMSO). DMAC and DMSO must be dried over 3Å molecular sieves for at least 24 hours before use. Solutions of NHS-biotin should be used immediately. Storing NHS-biotin in solution is not recommended."

**For research use only. Not intended for animal or human therapeutic or diagnostic use.**

## Specifications

<b>Unit Size</b>	100 mg, 1000 mg
<b>Molecular Weight</b>	341.38; single compound
<b>Chemical formula</b>	C <sub>14</sub> H <sub>19</sub> N <sub>3</sub> O <sub>5</sub> S
<b>CAS</b>	35013-72-0
<b>Purity</b>	> 97%
<b>Spacers</b>	
<b>Shipping</b>	Ambient
<b>Typical solubility properties (for additional information contact Customer Support)</b>	DMAC or DMSO, difficult to get into solution.
<b>Storage and handling</b>	-20°C; Always let come to room temperature before opening; be careful to limit exposure to moisture and restore under an inert atmosphere; stock solutions can be prepared with dry solvent and kept for several days (freeze when not in use). dPEG® pegylation compounds are generally hygroscopic and should be treated as such. This will be less noticeable with liquids, but the solids will become tacky and difficult to manipulate, if care is not taken to minimize air exposure.

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