

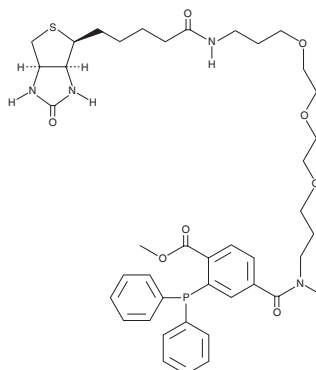
# PRODUCT INFORMATION



## Phosphine-biotin

Item No. 13581

**CAS Registry No.:** 608514-42-7  
**Formal Name:** 2-(diphenylphosphino)-4-[21-  
[(3aS,4S,6aR)-hexahydro-2-oxo-1H-  
thieno[3,4-d]imidazol-4-yl]-1,17-dioxo-  
6,9,12-trioxa-2,16-diazaheneicos-1-yl]-  
benzoic acid, methyl ester  
**Synonym:** Click Tag™ Phosphine-biotin  
**MF:** C<sub>41</sub>H<sub>53</sub>N<sub>4</sub>O<sub>8</sub>PS  
**FW:** 792.9  
**Purity:** ≥95%  
**Supplied as:** A crystalline 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

Phosphine-biotin is supplied as a crystalline solid. A stock solution may be made by dissolving the phosphine-biotin in the solvent of choice, which should be purged with an inert gas. Phosphine-biotin is soluble in the organic solvent DMSO at a concentration of approximately 2 mg/ml.

### Description

Phosphine biotin is a labeling reagent that selectively reacts with azido groups on modified proteins through the Staudinger ligation reaction. Modified proteins can be detected using common avidin-based biochemical techniques in whole cells or by blotting experiments following SDS-PAGE. For example, phosphine-biotin has been used successfully in conjunction with DAZ-1 or DAZ-2 to label and detect sulfenic acid sites in proteins.<sup>1,2</sup>

### References

1. Seo, Y.H. and Carroll, K.S. Facile synthesis and biological evaluation of a cell-permeable probe to detect redox-regulated proteins. *Bioorg. Med. Chem. Lett.* **19(2)**, 356-359 (2009).
2. Reddie, K.G., Seo, Y.H., Muse, W.B., III, *et al.* A chemical approach for detecting sulfenic acid-modified proteins in living cells. *Mol. Biosyst.* **4(6)**, 521-531 (2008).

#### 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

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