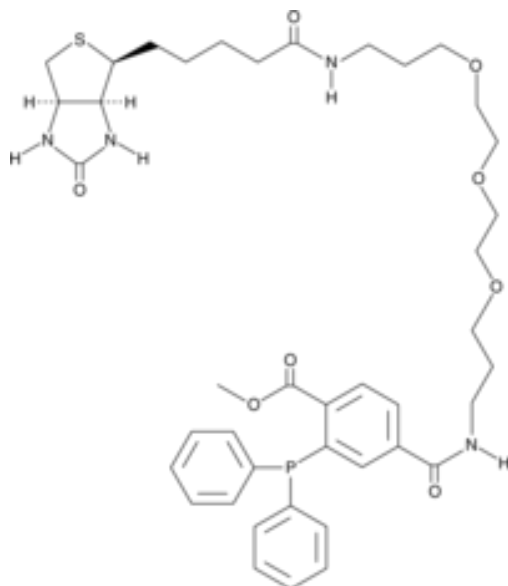


Cat. No.: GC44634



Product Data Sheet

method of protein labeling employs use of a reaction between an azido group and an alkyne on complimentary pairs of a specific reactive probe and a labeling agent (i.e. a tag) such as biotin or a fluorophore. The Staudinger ligation is an alternative to the click chemistry reaction in which a phosphine-labeled molecule reacts with an azido group on the opposing molecule of interest. 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.

Reference:

- [1]. Seo, Y.H., and Carroll, K.S. Facile synthesis and biological evaluation of a cell-permeable probe to detect redox-regulated proteins. *Bioorganic & Medicinal Chemistry Letters* 19, 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. *Molecular BioSystems* 4, 521-531 (2008).

Caution: Product has not been fully validated for medical applications. For research use only.

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