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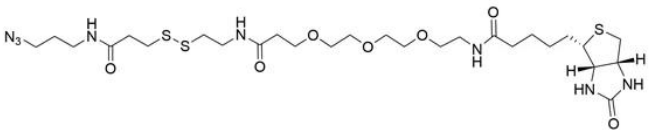
DISULFIDE BIOTIN AZIDE

SKU: CCT-1168



DESCRIPTION

Extraordinary strength of the streptavidin-biotin interaction allows for efficient capturing of even highly dilute targets; however, it makes recovery of proteins from affinity resins challenging. Conventional methods to elute biotinylated proteins from immobilized avidin include the following: (i) denaturation of streptavidin by boiling the resin in a denaturing buffer that may include high concentrations of chaotropic salts, (ii) trypsin digestion of proteins while they are bound to the resin, or (iii) elution of proteins with excess free biotin. These protocols can co-elute contaminant proteins by releasing nonspecifically bound proteins and/or naturally biotinylated proteins concurrently with labeled proteins. In addition, some of these methods can cause elution of high levels of resin-based peptides along with the proteins of interest, resulting in further sample contamination.

Disulfide Biotin Azide probe eliminates a major limitation of the streptavidin-biotin affinity purification. This reagent contains a biotin moiety linked to an azide moiety through a spacer arm containing a cleavable disulfide linker. Captured biomolecules can be efficiently released under mild conditions (50 mM dithiothreitol, 10 mM 2-mercaptoethanol or 1% sodium borohydride) and the small molecular fragment (188.25 Da) left on the labeled protein following cleavage. These features make the cleavable probe especially attractive for use in biomolecular labeling and proteomic studies.

SPECIFICATIONS

For research use only. Not intended for therapeutic or diagnostic use in animals or humans.

CAS Number	N/A
Molecular Weight	692.91
Appearance	Yellow amorphous solid to yellow oil
Chemical Formula	C27H48N8O7S3
Molecular Weight Left Behind	188.25
Unit Size	1 mg, 5 mg, 25 mg
Solubility	DMSO, DMF
Storage Instructions	-20°C.
Shipping Conditions	Ambient temperature
Shipping Instructions	Ambient temperature

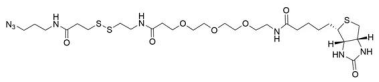
SELECTED REFERENCES

1. Szychowski, J., *et al.* (2010). Cleavable Biotin Probes for Labeling of Biomolecules via Azide−Alkyne Cycloaddition. *J. Am. Chem. Soc.,* **132**: 18351-60. [PubMed]
2. Yang Y., *et al.* (2013). Cleavable Trifunctional Biotin Reagents for Protein Labeling, Capture, and Release. *Chem. Commun.,* **48**: 5366-86. [PubMed]

DOCUMENTS

- Safety Data Sheet
- Datasheet

GALLERY IMAGES



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