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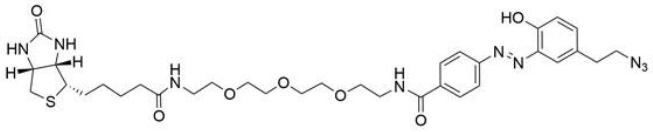
DIAZO BIOTIN AZIDE

SKU: CCT-1041



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:

• denaturation of streptavidin by boiling the resin in a denaturing buffer that may include high concentrations of chaotropic salts
• trypsin digestion of proteins while they are bound to the resin, or
• 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.

Diazo Biotin-Azide probes eliminate 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 linker. Captured biomolecules can be efficiently released under mild conditions (25 mM sodium dithionite) and the small (178.19 Da) molecular fragment left on the labeled protein following cleavage. These features make the Diazo probe especially attractive for use in biomolecular labeling and proteomic studies.

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SPECIFICATIONS

CAS Number	1339202-33-3
Molecular Weight	711.83
Appearance	Dark orange solid
Chemical Formula	C33H45N9O7S
Molecular Weight Left Behind	178.19
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. Howell, A. R., *et al.* (2021). α-Methylene-β-Lactone Scaffold for Developing Chemical Probes at the Two Ends of the Selectivity Spectrum. *Chembiochem.*, **22 (3)**, 505-515. [PubMed]
2. Chuch N.C., *et al*. (2017). The New Chemical Reporter 6-Alkynyl-6-deoxy-GlcNAc Reveals O-GlcNAc Modification of the Apoptotic Caspases That Can Block the Cleavage/Activation of Caspase-8. *J. Am. Chem. Soc.,*. **139**: 7872-85. [PubMed]
3. Ying-Yu Y., *et al*. (2011). Identification of lysine acetyltransferase p300 substrates using 4-pentynoyl-coenzyme A and bioorthogonal proteomics.*Bioorg. Med. Chem. Lett.,*. **21**: 4976-79. [PubMed]
4. Yang Y.Y., *et al.* (2010). Comparative Analysis of Cleavable Azobenzene-Based Affinity Tags for Bioorthogonal Chemical Proteomics. Chemistry & Biology. *Chem. Biol.* **17**: 2112-22. [PubMed]

DOCUMENTS

- Safety Data Sheet
- Download CoA
- User Guide
- Datasheet

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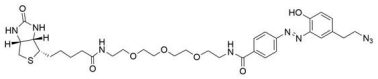
GALLERY IMAGES



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