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CHROMALINK® BIOTIN MALEMIDE

SKU: B-1012-010

DESCRIPTION

ChromaLINK Biotin contains a UV-traceable chromophore based on ChromaLINK technology to enable reproducibility in your biotinylation process. Now you can measure the degree of biotinylation in minutes, not hours, without the standard curves required for HABA/avidin and fluoro-reporter assays. With a simple UV scan, you can quantify biotin incorporation and ensure reproducible production of consistent batches. The maleimide group reacts with free thiol groups on biomolecules and surfaces, such as the hinge region of antibodies after mild reduction of sulfhydryl groups with TCEP or DTT.

SPECIFICATIONS

Reactivity	Streptavidin
Unit Size	10 mg
Storage Instructions	Desiccated: -15° to -25°C

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

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Applications	Aptamers
Label	biotin

TECHNICAL INFORMATION

Introduction to ChromaLINK Labeling Technology

ChromaLINK Biotin Maleimide incorporates UV-traceable biotin onto thiol containing proteins, peptides and/or antibodies. ChromaLINK Biotin Maleimide has been engineered to include many novel features. As illustrated in Figure 1, the molecule's structure contains a bis-aryl hydrazone chromophore (a), linked by a PEG3 linker arm (b), to biotin (c). This reagent permits direct spectroscopic quantification of incorporated biotin. The extended PEG3 linker preserves biotin/streptavidin affinity and maintains protein solubility after modification while the maleimide functional group (d), efficiently modifies thiols in aqueous buffers.

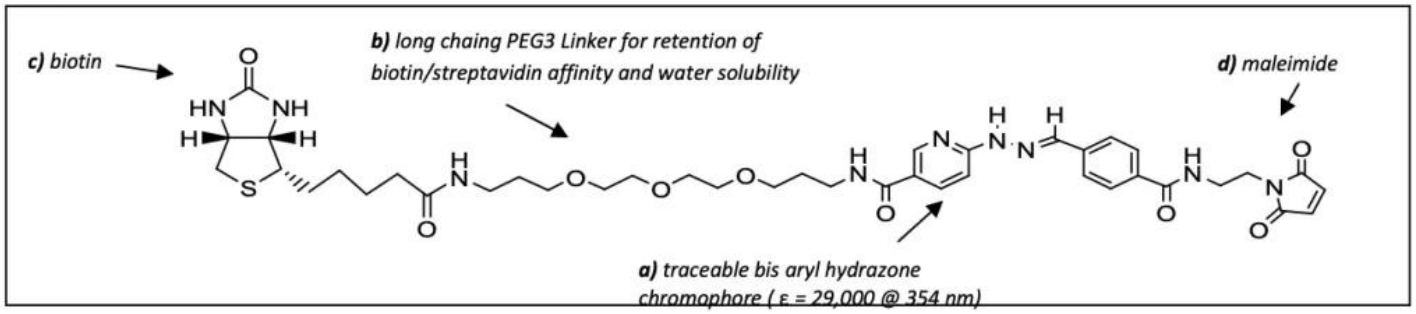

Figure 1. Molecular structure of ChromaLINK Biotin Maleimide

Labeling of proteins with ChromaLINK Biotin eliminates the need to carry out cumbersome and time-consuming HABA assays often employed to quantify biotin incorporation. Instead, biotin incorporation is quantified by means of a simple spectrophotometric measurement at two wavelengths (A280 / A354). Typical labeling results are illustrated in Figure 2 by spectral overlay scans of four samples. As illustrated, bovine Serum Albumin (100 ul @ 1 mg/ml) was labeled at 0, 5, 10, and 20 mole equivalents using ChromaLINK Biotin Maleimide. Spectral analysis illustrates how easy it is to visualize, confirm, and quantify biotin incorporation.

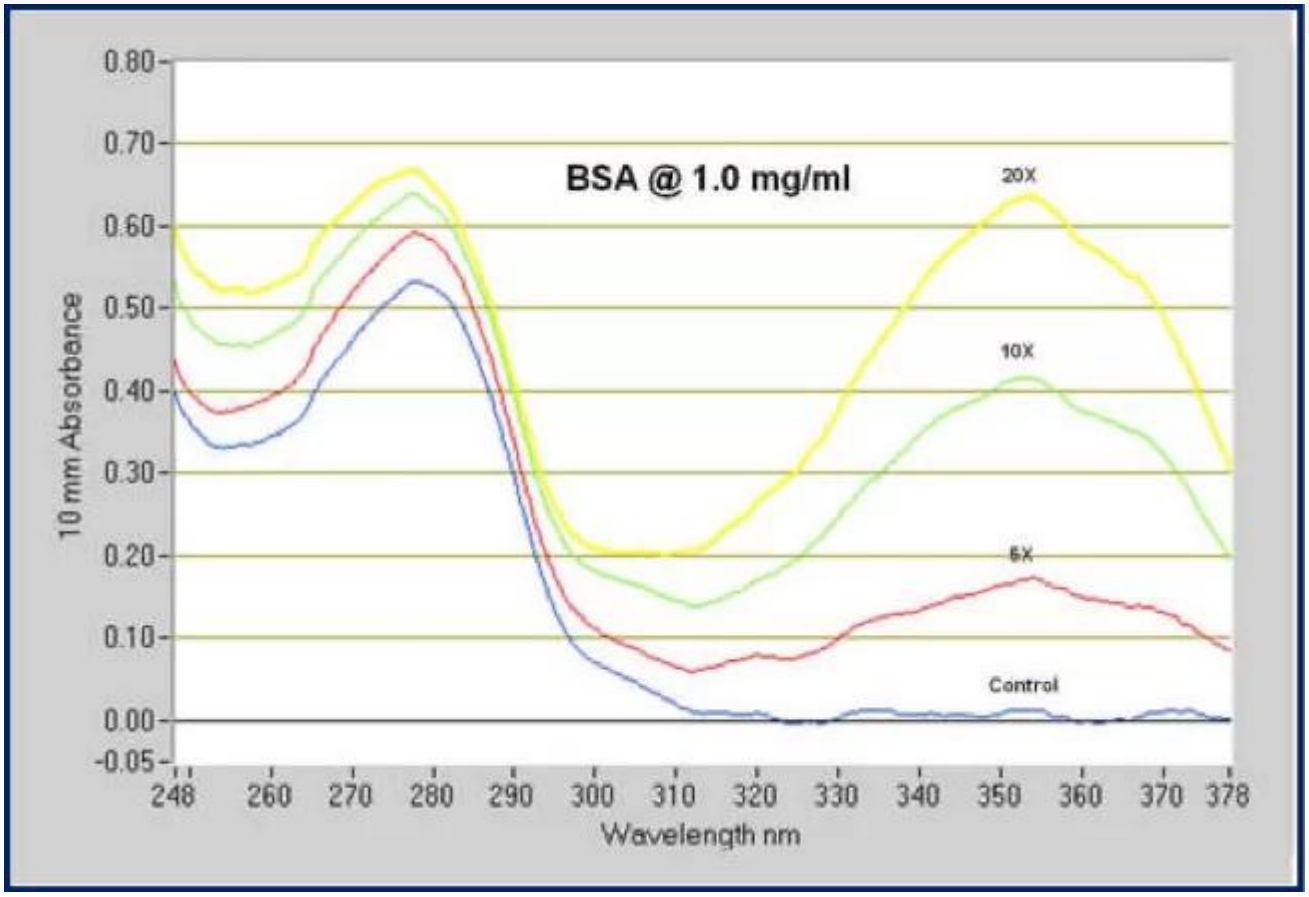

Figure 2. Superimposed spectra of BSA biotinylated using ChromaLINK Biotin Maleimide. Various biotin-to-protein mole equivalents (5X, 10X and 20X) were used. Note the UV-signature at 354nm indicating incorporation of biotin. All spectra were scanned on a Molecular Dynamics SpectraMax PlusTM UV-VIS plate reader (220-420 nm).

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DOCUMENTS

- User Guide
- B-1012 – ChromaLINK Biotin Conjugation Calculator
- Safety Data Sheet
- Troubleshooting Guide – Bioconjugation
- Oligonucleotide Buffer Exchange and Desalting Protocol
- Protein Buffer Exchange and Desalting Protocol
- BCA Protein Assay Protocol
- Bradford Assay Protocol
- Download CoA
- Datasheet

GALLERY IMAGES

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