Revision Date: 12/31/2017



## **Product Data Sheet**

#### Introduction:

The EZLink Sulfo-NHS-Biotin Kit contains reagents sufficient for 10 biotin labeling reactions. It is a water-soluble biotin reagent for labeling protein, antibody or other molecules with amidogen (NH2-). The biotin in the kit is sufficient and has been activated for direct use. The whole procedure is simple and quick.

Sulfo-NHS-Biotin (N-Hydroxysulfosuccinimidobiotin) is an amine-reactive biotinylation reagent. The most common amine-reactive biotinylation reagents can be divided into two basic types, N-hydroxysuccinimide (NHS) esters and carboxylates. Generally, NHS esters biotinylation reagent contains a reactive NHS ring structure that reacts with an amine on the carbonyl group of a protein or other molecules through nucleophilic attack subsequently forming a stable amide linkage and releasing the NHS group. Due to the insolubility of NHS-biotin in aqueous environments, sulfo-NHS-biotin, a water-soluble analog of NHS-biotin, has been developed by attaching a negatively charged sulfonate group on the NHS ring structure, which can be added directly to aqueous reactions without the need for organic solvent dissolution.

## **Principle:**

## **Specificity:**

• Amine-reaction—Reacting with primary amines (-NH2), such as lysine side-chains,

or the amino-termini of polypeptides.

- Labeling antibody—This kit can label antibodies to facilitate immobilization, purification or detection.
- Labeling protein—This kit can label proteins to facilitate immobilization, purification or detection.
- Labeling Cell surface molecule—This kit can label the cell surface proteins because the negatively charged reagent does not permeate cell membranes.
- Irreversible-Permanent amide bonds are formed; Spacer arm cannot be cleaved.
- Very short arm—Spacer arm (total length added to target) is 13.5 angstroms; it consists of the native biotin valeric acid group only.
- Solubility increased—Sulfo-NHS group increases reagent water solubility compared to ordinary NHS-ester compounds.

#### **Kit Contents:**

Streptavidin

HABA Solution

PBS Pack (ma Sephadex G-2 APEXB O columns

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## **Storage and Handling:**

Store biotin and streptavidin reagents at -20°C. Store remaining kit components at 4°C.

### **Caution**

#### FOR RESEARCH PURPOSES ONLY.

#### NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage

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