

## Streptavidin-HyperFluor™ 647

## Introduction

Streptavidin is a 52,800 dalton tetrameric protein that binds to Biotin with high specificity, and one molecule Streptavidin can bind to 4 Biotin molecules, and this binding is irreversible. Compared with avidin, the affinity of Streptavidin and Avidin, which is derived from egg white, is highly similar to that of Biotin, but Streptividin is almost uncharged under neutral conditions, so the non-specific binding of Streptavidin is much lower than that of Avidin, and the non-specific background of the detection is much less. Streptavidin can be used for the detection of Biotin-labeled antibodies, nucleic acids, proteins, or other biotinylated molecules.

HyperFluor<sup>™</sup> 647 is a commonly used fluorescent dye that is widely used in biological and medical research, particularly in techniques such as fluorescence microscopy, flow cytometry, and fluorescence resonance energy transfer (FRET). It emits red fluorescence with an excitation wavelength of about 650 nm and an emission wavelength of about 668 nm.

Streptavidin-HyperFluor<sup>™</sup> 647 is a bioprobe that combines Streptavidin protein and HyperFluor<sup>™</sup> 647 fluorescent dye, making it a powerful and sensitive fluorescent labeling tool.

#### Protocol

Dilute 1:20 to 1:50 and use PBS containing 10% normal goat serum. The working dilution for a particular application should be determined by the individual investigator to obtain optimal conditions.

#### Note

- 1. This product contains sodium azide, which is harmful to the human body, please pay attention to proper protection.
- It is recommended that the working solution be prepared and used at the ready.
- Storage conditions: 4°C protected from light, effective for 6 months.
- This product is for scientific use only.

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# **APExBIO Technology**

### www.apexbt.com

7505 Fannin street, Suite 410, Houston, TX 77054.

Tel: +1-832-696-8203 | Fax: +1-832-641-3177 | Email: info@apexbt.com