

**Datasheet for S000-06****Streptavidin Cy5 Conjugated****Overview**

|                      |                                                                                 |
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| <b>Description:</b>  | Streptavidin Cy5 Conjugated - S000-06                                           |
| <b>Item No.:</b>     | S000-06                                                                         |
| <b>Size:</b>         | 1 mg                                                                            |
| <b>Applications:</b> | Dot Blot, WB, ELISA, EM, FISH, Functional Assay, IF, IHC, Microarray, Multiplex |

**Product Details**

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| <b>Background:</b> | Streptavidin is isolated from bacteria, <i>Streptomyces avidinii</i> , and has an exceptionally high binding affinity for B7 (biotin). Rockland offers streptavidin in unconjugated and conjugated forms for common immunoassays including ELISA, western blotting, immunohistochemistry. Streptavidin is a tetrameric protein capable of binding 4 biotin groups to each molecule of streptavidin. While streptavidin has identical binding properties as avidin, it lacks the glycoprotein portion of the molecule and therefore shows less non-specific binding. Streptavidin is a slightly smaller molecule with a molecular weight of approximately 53.6 kDa. The sequence of avidin only shows 30% homology with streptavidin, and anti-avidin and anti-streptavidin antibodies are not immunologically cross reactive. Rockland conjugates a broad group of secondary antibodies to many of the classic fluorescent markers including fluorescein, rhodamine, Texas Red, CyDyes™ and Phycoerythrin (RPE). All of the conjugates are ideal for various immunofluorescence based assays including fluorescent western blotting, immunofluorescence microscopy, FLISA, and more. Rockland also produces many next generation fluorochrome dyes designed for detection of primary antibodies in multiplex, multi-color analysis. |
| <b>Synonyms:</b>   | SA, S avidin, streptococcus avidin, Streptavidin Cy5 Conjugated, Cy5 conjugated Streptavidin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Conjugate:</b>  | Cy5™                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>F/P Ratio:</b>  | 10.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Target Details**

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| <b>Purity/Specificity:</b> | Cy5 conjugated Streptavidin was prepared from chromatographically purified streptavidin followed by conjugation to the dye Cy5 and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Streptavidin. No reaction was observed against anti-Avidin. |
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## Application Details

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| <b>Tested Applications:</b>    | Dot Blot, WB                                                                                                                                                                                                                                                                                                                      |
| <b>Suggested Applications:</b> | ELISA, EM, FISH, Functional Assay, IF, IHC, Microarray, Multiplex (Based on references)                                                                                                                                                                                                                                           |
| <b>Application Note:</b>       | Streptavidin Cy5 Conjugated has been tested by dot blot and western blot and is designed for immunofluorescence microscopy, fluorescence based plate assays (FLISA) and fluorescent western blotting. This product is also suitable for multiplex analysis, including multicolor imaging, utilizing various commercial platforms. |
| <b>Assay Dilutions:</b>        | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.                                                                                                                                                                                                                                   |
| <b>FC:</b>                     | 1:500 - 1:2,500                                                                                                                                                                                                                                                                                                                   |
| <b>FLISA:</b>                  | 1:10,000 - 1:50,000                                                                                                                                                                                                                                                                                                               |
| <b>IF:</b>                     | 1:1,000 - 1:5,000                                                                                                                                                                                                                                                                                                                 |

## Formulation

|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                            |
| <b>Concentration:</b>         | 1.0 mg/mL by UV absorbance at 280 nm                                   |
| <b>Buffer:</b>                | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2             |
| <b>Preservative:</b>          | 0.01% (w/v) Sodium Azide                                               |
| <b>Stabilizer:</b>            | 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free |
| <b>Reconstitution Volume:</b> | 1.0 mL                                                                 |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent)                           |

## Shipping & Handling

|                            |                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Shipping Condition:</b> | Ambient                                                                                                                                                                                                                                                                                                                                         |
| <b>Storage Condition:</b>  | Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use. |
| <b>Expiration:</b>         | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                           |

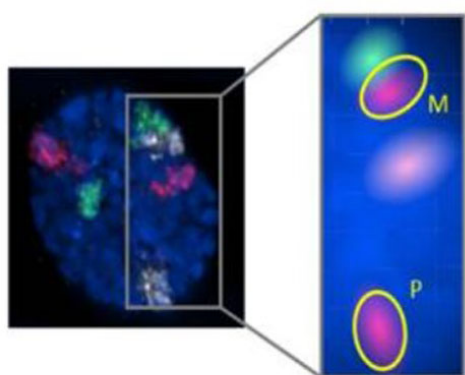
## Images



### Bottle

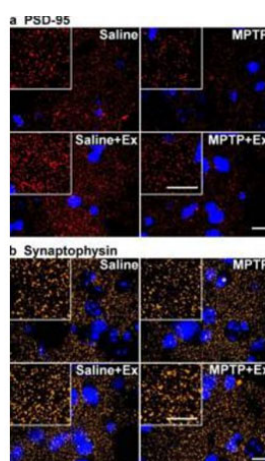
Streptavidin Cy5 Conjugated

### A Genome Imaging



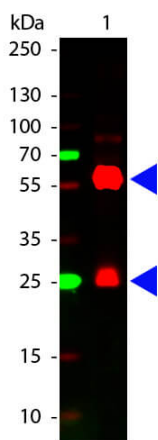
### Fluorescence in situ Hybridization (FISH)

Genome imaging and chromosome differences  
 (A) Nucleus of a primary human fibroblast imaged using 3D FISH with the maternal and paternal copies of Chromosome 6, 8, and 11 painted red, green, and white, respectively (left). Subsection highlighting the separation between the maternal and paternal copies of Chromosome 11, now colored red (right). Streptavidin Cy5 Conjugated (p/n S000-06). Fig 2. PMID: 34877507.



### Immunofluorescence Microscopy

Immunohistochemical staining of synaptic proteins PSD-95 and synaptophysin. Panel a shows representative immunohistochemical staining of dorsolateral striatal tissues from all four groups with an antibody against PSD-95 protein (red) and the nuclear stain DAPI (blue). The insert boxes in each panel are images at a higher magnification showing distinct puncta (synaptic staining). The scales bars in each set of panels represent 10 microns. Panel b shows representative immunohistochemical staining of dorsolateral striatal tissues from all four groups with an antibody against synaptophysin protein (red) and the nuclear stain DAPI (blue). Antibodies used to detect PSD-95 and synaptophysin and biotinylated goat anti-mouse IgG. Sections incubated with Cy5-conjugated streptavidin (p/n S000-06) and Alexa Fluor 594-conjugated goat anti-rabbit IgG. Fig 5. PMID: 24316165.



#### Western Blot

Western Blot of Cy5 conjugated Streptavidin. Lane 1: Biotin conjugated Guinea Pig IgG. Lane 2: none. Load: 100 ng per lane. Primary antibody: none. Secondary antibody: Cy5 conjugated Streptavidin at 1:1,000 for 60 min at RT. Block: MB-070 for 30 min at RT. Predicted/Observed size: 55 kDa, 28 kDa for Guinea Pig IgG. Other band(s): none.

## References

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## Disclaimer

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