

Datasheet for S000-43

Streptavidin DyLight™ 649 Conjugated**Overview**

| | |
|----------------------|--|
| Description: | Streptavidin DyLight™ 649 Conjugated - S000-43 |
| Item No.: | S000-43 |
| Size: | 100 µg |
| Applications: | Dot Blot, IF, WB |

Product Details

Background: Streptavidin is isolated from bacteria, *Streptomyces avidinii*, 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). Rockland also produces many next generation fluorochrome dyes designed for detection of primary antibodies in multiplex, multi-color analysis. Next generation fluorochrome conjugates (DyLight™ dyes) offer superior absorption (high extinction coefficient), high fluorescence quantum yield, and superior high photostability.

| | |
|---------------------------|--|
| Synonyms: | SA, S avidin, streptococcus avidin, streptavidin DyLight™ 649 Conjugated |
| Conjugate: | DyLight™ 649 |
| F/P Ratio: | 5.3 |
| Specific Activity: | 5.3 |

Target Details

Purity/Specificity: This product was prepared from chromatographically purified Streptavidin. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Streptavidin.

Application Details

| | |
|--------------------------------|--|
| Tested Applications: | Dot Blot |
| Suggested Applications: | IF, WB (Based on references) |
| Application Note: | Streptavidin DyLight™649 has been tested by dot 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. The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation. |
| Assay Dilutions: | All assays should be optimized by the user. Recommended dilutions (if any) may be listed below. |
| FLISA: | >1:20,000 |
| IF: | >1:5,000 |
| WB: | >1:10,000 |

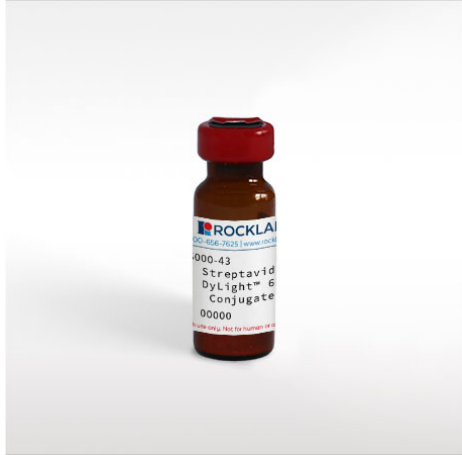
Formulation

| | |
|-------------------------------|--|
| Physical State: | Lyophilized |
| Concentration: | 1.0 mg/mL by UV absorbance at 280 nm |
| Buffer: | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 |
| Preservative: | 0.01% (w/v) Sodium Azide |
| Stabilizer: | 10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free |
| Reconstitution Volume: | 100 µL |
| Reconstitution Buffer: | Restore with deionized water (or equivalent) |

Shipping & Handling

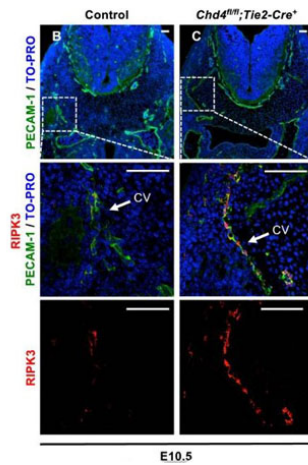
| | |
|----------------------------|---|
| Shipping Condition: | Ambient |
| Storage Condition: | Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing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

Images



Bottle

Streptavidin DyLight™ 649 Conjugated



Immunofluorescence Microscopy

RIPK3 is upregulated in *Chd4*^{fl/fl};*Tie2*-Cre⁺ embryonic endothelial cells and contributes to vascular rupture. b, c Cross sections of E10.5 littermate control and *Chd4*^{fl/fl};*Tie2*-Cre⁺ embryos containing the cardinal vein (CV) were immunostained for the endothelial cell marker PECAM-1 (green) and for RIPK3 (red) and were counterstained with the nucleic acid-binding dye TO-PRO®-3 (TO-PRO, blue). Images were generated by confocal microscopy. Boxed regions in the top panels are shown magnified in the middle and bottom panels (merged and RIPK3-only channels, respectively). Images are the representative of immunostaining from three separate control and mutant littermate embryos. Secondary antibodies used were FITC-donkey-anti-goat IgG and Streptavidin-649 (p/n S000-43). Scale bars: 50 μ m. Fig 2. PMID: 31235857.

References

- Tanida I et al. Application of immuno- and affinity labeling with fluorescent dyes to in-resin CLEM of Epon-embedded cells. *Heliyon*. (2023)
- Colijn S et al. The NuRD chromatin-remodeling complex enzyme CHD4 prevents hypoxia-induced endothelial *Ripk3* transcription and murine embryonic vascular rupture. *Cell Death Differ*. (2020)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.