

Datasheet for S000-13**Streptavidin Cy5.5 Conjugated****Overview**

Description:	Streptavidin Cy5.5 Conjugated - S000-13
Item No.:	S000-13
Size:	1 mg
Applications:	Dot Blot, WB, IF

Product Details

Background:	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.
Synonyms:	SA, S avidin, streptococcus avidin, streptavidin Cy5.5 Conjugated
Conjugate:	Cy5.5™
F/P Ratio:	5.3

Target Details

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

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF (Based on references)
Application Note:	Streptavidin CY5.5 conjugate 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1:500 - 1:2,500
FLISA:	1:10,000 - 1:50,000
IF:	1:1,000 - 1:5,000

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:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

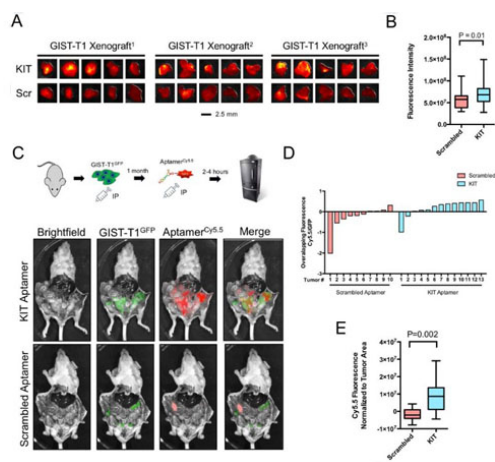
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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 Cy5.5 Conjugated



Immunofluorescence Microscopy

KIT aptamer binds GIST ex vivo and in vivo. (A-B) Immunocytochemistry and fluorescence microscopy of ex vivo GIST xenograft fragments. Representative images of anti-KIT or scrambled aptamer labeling of xenograft fragments. Fluorescence intensity quantification (Living Image, PerkinElmer) tumor fragments (N=6, p-value by Kruskal-Wallis test). (C) Schema demonstrating the experimental workflow of in vivo aptamer labeling in an intraperitoneal model of GIST, as well as representative images of GFP-labeled GIST-T1 xenograft in situ and Cy5.5-labeled aptamer. (D) Waterfall plot analysis of individual tumors with ratio of Cy5.5-labeled aptamer fluorescence intensity to GFP-labeled GIST-T1 xenograft fluorescence intensity (N=10). (E) Cy5.5-labeled aptamer fluorescence intensity (Living Image, PerkinElmer) normalized to tumor area for comparison of in vivo labeled IP model of GIST (p-value by Kruskal-Wallis test). The aptamer used for live imaging experiments were either directly conjugated to Cy5.5 or pre-conjugated with streptavidin-Cy5.5 (p/n S000-13) with a biotinylated aptamer. Fig 6. PMID: 32127469.

References

- Banerjee, S et al. Anti-KIT DNA Aptamer for Targeted Labeling of Gastrointestinal Stromal Tumor. *Molecular Cancer Therapeutics* (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.