

Datasheet for S000-44**Streptavidin DyLight™ 680 Conjugated****Overview**

Description:	Streptavidin DyLight™ 680 Conjugated - S000-44
Item No.:	S000-44
Size:	100 µg
Applications:	WB

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). 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™ 680 Conjugated
Conjugate:	DyLight™ 680
F/P Ratio:	2.1

Target Details

Purity/Specificity:	This product was prepared from chromatographically purified Streptavidin. 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

Suggested Applications:	WB (Based on references)
Application Note:	This product 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

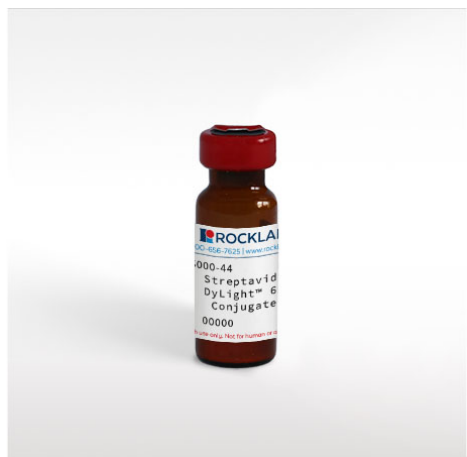
Formulation

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™ 680 Conjugated

Western Blot

PIPKly-talin and paxillin-Git1 interactions were used to examine the potential of the Avitag-BirA system for in vitro GST pulldown assays. (A) PIPKly pulldown with a GST talin mutant. CHO cells were transfected with Avi-PIPKly and treated with biotin. The lysates were incubated GST-profilin or GST-Tal210-605 immobilized on glutathione Sepharose beads. The Avi-PIPKly binding was detected by blotting with DL680-streptavidin. (B) Git1 pulldown with GST-paxillin. The CHO cells were transfected with Avi-Git1 or empty vector and treated with biotin. The lysates were incubated GST-profilin or GST-paxillin immobilized on glutathione Sepharose beads. The Avi-Git1 binding was detected by blotting with DL680-streptavidin. (C) Sensitivity comparison between the Avitag-BirA system and the conventional antigen/antibody detection. The CHO cells were transfected with Avi-PIPKI and treated with biotin. Cell lysates were applied to SDS-PAGE and Western blotting, and Avi-PIPKI was detected by an anti-PIPKI polyclonal antibody and DL680-streptavidin (p/n S000-44), respectively. Densities of protein bands were measured using ImageJ as described previously (18); the relative densities are shown on the top of the figure. Fig 2. PMID: 21143209.

References

- Huang, C et al. Detection of protein-protein interactions using nonimmune IgG and BirA-mediated biotinylation. *BioTechniques* (2010)

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.