

Datasheet for S000-45**Streptavidin DyLight™ 800 Conjugated****Overview**

Description:	Streptavidin DyLight™ 800 Conjugated - S000-45
Item No.:	S000-45
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™ 800 Conjugated
Conjugate:	DyLight™ 800
F/P Ratio:	4.0

Target Details

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

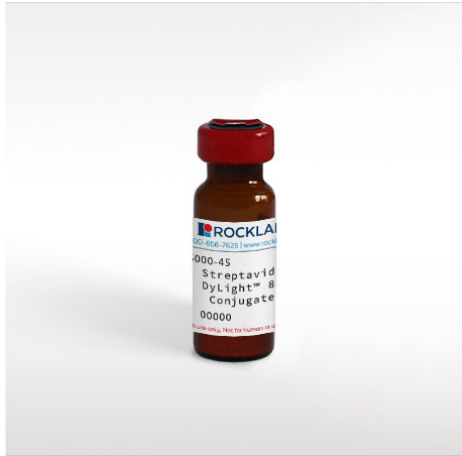
Formulation

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

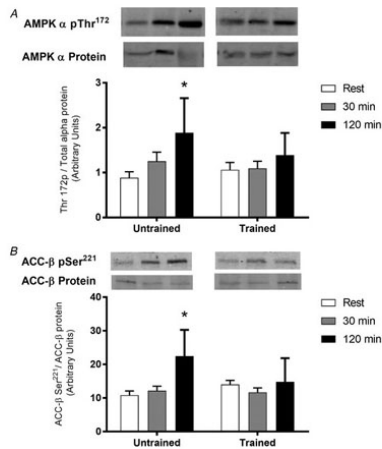
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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™ 800 Conjugated



Western Blot

Skeletal muscle AMPK α Thr172 and ACC- β Ser221 phosphorylation.

Representative immunoblot of AMPK α Thr172 phosphorylation (A) measured using a phosphospecific antibody for AMPK α Thr172, normalized to total AMPK α protein; and ACC- β Ser221 phosphorylation (B) measured using a phosphospecific antibody specific to ACC- β Ser221, normalized to total ACC- β . Muscle samples were obtained before exercise (rest), after 30 min and immediately following 120 min of steady-state exercise at $\approx 65\%$ $\dot{V}O_2$ peak in untrained and exercise trained participants. Samples of pAMPK or AMPK for each participant were run on the same western blot. The representative western blots for pAMPK or AMPK shown are from the same membrane but are rearranged for clarity. 800-labelled streptavidin (p/n S000-45). Data are the mean $\pm$ SD, $n = 11$ untrained, 7 trained. *Significantly different from corresponding trained value ($P < 0.05$). §Main effect for time ($P < 0.05$). Fig 5. PMID: 32588910.

References

- Sun H et al. IL-2 can signal via chemokine receptors to promote regulatory T cells' suppressive function. *Cell Rep.* (2023)
- McConnell GK et al. Skeletal muscle AMPK is not activated during 2 h of moderate intensity exercise at $\approx 65\%$ in endurance trained men. *J Physiol.* (2020)
- Ross, FA et al. Mechanisms of Paradoxical Activation of AMPK by the Kinase Inhibitors SU6656 and Sorafenib. *Cell Chemical Biology* (2017)

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.