

Datasheet for 600-141-098**Biotin Antibody Dylight™ 488 Conjugated****Overview**

Description:	Anti-Biotin (GOAT) Antibody DyLight™ 488 Conjugated - 600-141-098
Item No.:	600-141-098
Size:	100 µg
Applications:	Dot Blot, FC, IF, Multiplex
Reactivity:	Biotin
Host Species:	Goat

Product Details

Background:	Biotin Antibody detects Biotin. Biotin is a water-soluble B-complex vitamin (vitamin B7). It is composed of a ureido (tetrahydroimidizalone) ring fused with a tetrahydrothiophene ring. A valeric acid substituent is attached to one of the carbon atoms of the tetrahydrothiophene ring. Biotin is a coenzyme for carboxylase enzymes, involved in the synthesis of fatty acids, isoleucine, and valine, and in gluconeogenesis. Biotin is necessary for cell growth, the production of fatty acids, and the metabolism of fats and amino acids. Anti-Biotin DyLight Conjugated Antibody is ideal for investigators involved in Cell Signaling and Cell Biology research.
Synonyms:	Goat anti Biotin Antibody Dylight™ 488 Conjugated, Goat anti-biotin Antibody Dylight™ 488 Conjugated
Host Species:	Goat
Conjugate:	DyLight™ 488
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	4.0

Target Details

Reactivity:	Biotin
Immunogen Type:	Other
Immunogen:	Biotin conjugated to Keyhole Limpet Hemocyanin (b-KLH)

Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Biotin coupled to sepharose beads. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Biotin conjugated IgG and Biotin conjugated Bovine Serum Albumin.
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Application Details

Tested Applications:	Dot Blot, FC, IF, Multiplex
Application Note:	Anti-Biotin Antibody DyLight488 has been tested by Dot blot, Flow cytometry, and Immunofluorescence. The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation. 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.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
FC:	1:5000
FLISA:	>1:20,000
IF:	>1:5,000
WB:	>1:10,000

Formulation

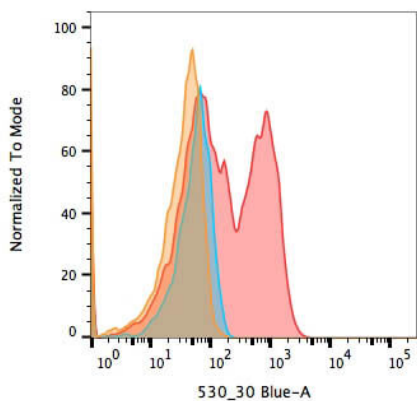
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 µL
Reconstitution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

Shipping & Handling

Shipping Condition:	Ambient
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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.

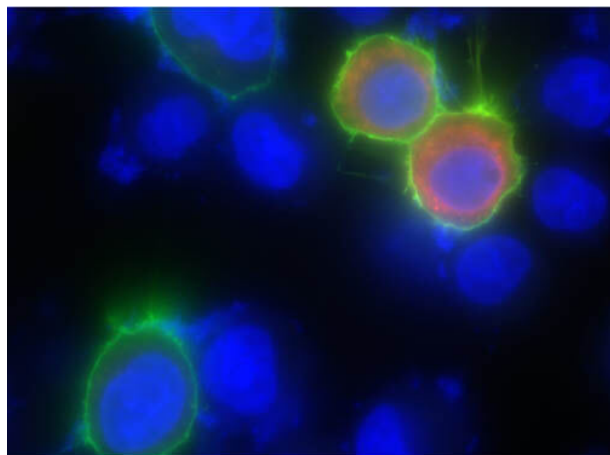
Images



Flow Cytometry
Flow Cytometry of Goat anti-biotin DyLight 488 antibody. Cells were transiently transfected with a peroxidase-encoding plasmid and were incubated for 24 hours before carrying out a modified TSA reaction. Cells were fixed and permeabilized before probing with Rockland goat anti-biotin DyLight 488 at 1:5000 dilution for 2 hours at room temperature. Transfected and biotin supplemented population (red) is compared to transfected, non-supplemented (blue) and non-transfected, biotin supplemented (orange) controls. Image courtesy Ben Dyer, University of Pennsylvania.

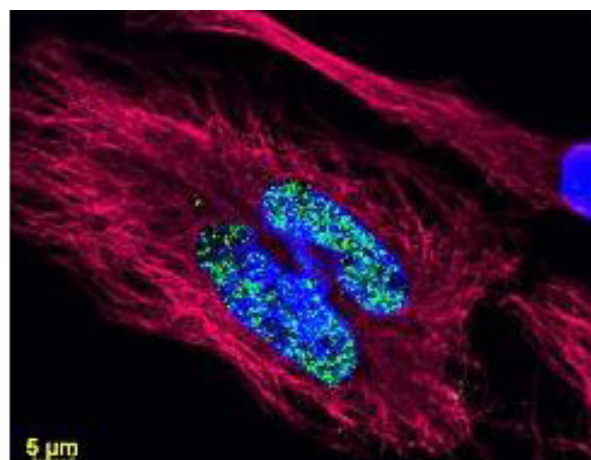
Diagram
Properties of DyLight™ Fluorescent Dyes.

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ϵ (M ⁻¹ cm ⁻¹)	Similar Dyes
Blue		405	400/420	30,000	Alexa™ 405, Cascade Blue
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®, TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
Near Infrared		680	682/715	140,000	Alexa™ 680, Cy5.5®, IRI dye™ 700
Infrared		800	770/794	270,000	IRI dye™ 800



Immunofluorescence Microscopy

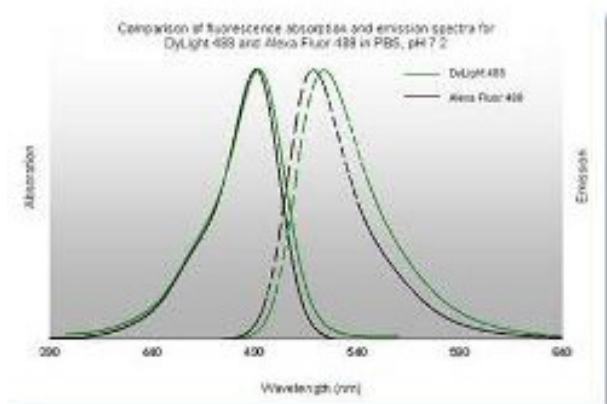
Immunofluorescence of Goat anti-biotin DyLight 488 antibody. Cells grown on glass coverslips were transiently transfected with a peroxidase-encoding plasmid and were incubated for 24 hours before carrying out a modified TSA reaction. Cells were fixed and permeabilized before probing with Rockland goat anti-biotin DyLight 488 at 1:1250 dilution for 2 hours at room temperature. Cells were washed before mounting on glass slides and imaged for biotin (green), DAPI (blue), and transfected peroxidase (red). Image courtesy Ben Dyer, University of Pennsylvania.



Immunofluorescence Microscopy

DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight™ 488 conjugate (green). Anti-Tubulin was detected using a DyLight™ 549 conjugate (red). Nuclei were counter-stained using DAPI (blue). The image was captured using an Axio Imager.Z1 (Zeiss Micro Imaging Inc).

Diagram



References

- Lipovsek et al. Adnectin-drug conjugates for Glypican-3-specific delivery of a cytotoxic payload to tumors. *Protein Engineering, Design and Selection* (2018)

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.