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Datasheet for 610-141-121

Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated Pre-Adsorbed

Overview

Description:	Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins) - 610-141-121
Item No.:	610-141-121
Size:	100 µg
Applications:	Dot Blot, WB, IF, Multiplex
Reactivity:	Mouse
Host Species:	Goat

Product Details

Background:	Anti-Mouse IgG DyLight 488 Antibody generated in goat detects reactivity to Mouse IgG. Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the compliment cascade, and opsonization for phagocytosis. The whole IgG molecule possesses both the F(c) region, recognized by high-affinity Fc receptor proteins, as well as the F(ab) region possessing the epitope-recognition site. Both the Heavy and Light chains of the antibody molecule are present. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition.
Synonyms:	Goat Anti-Mouse IgG Secondary Antibody DyLight™488 Conjugated, Goat Anti-Mouse IgG Antibody DyLight™488 Conjugated, Anti-mouse IgG secondary antibody, anti-mouse IgG DyLight™488 conjugated secondary antibody
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 488
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	4.8

Target Details

Reactivity:	Mouse
Immunogen:	Mouse IgG whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Mouse IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Mouse IgG and Mouse Serum. No reaction was observed against Bovine, Chicken, Goat, Guinea Pig, Hamster, Horse, Human, Rabbit, Rat and Sheep Serum Proteins. This antibody will react with heavy chains of mouse IgG and with light chains of most mouse immunoglobulins.

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF, Multiplex (Based on references)
Application Note:	Anti-Mouse IgG DyLight 488 Antibody has been tested by dot blot and western blot. 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

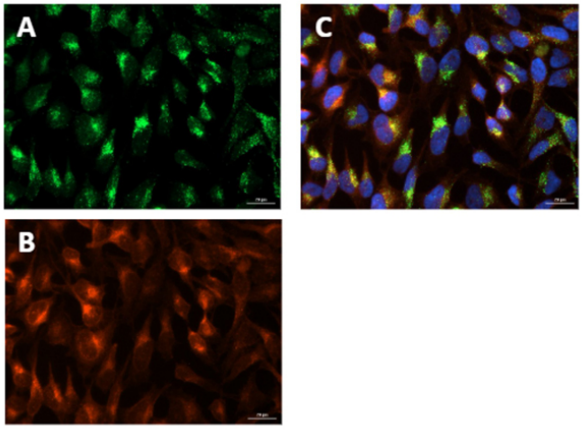
Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free

Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

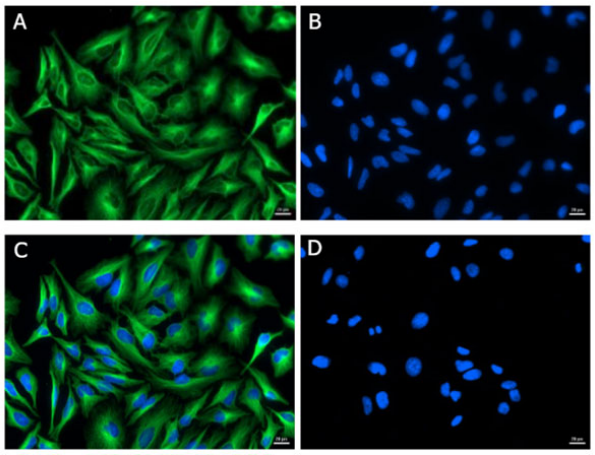
Shipping & Handling

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.

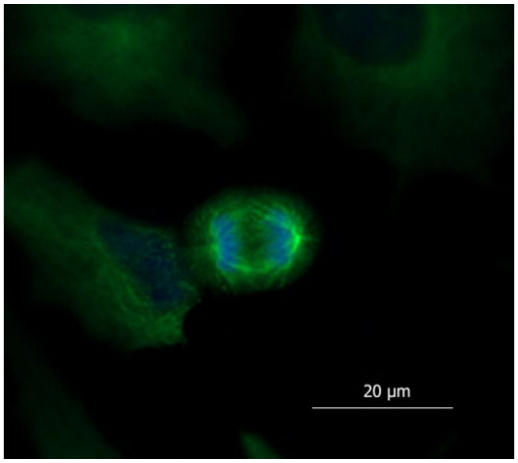
Images



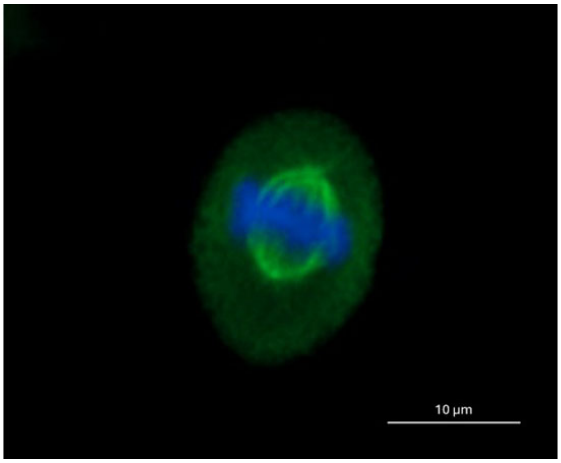
Immunofluorescence Microscopy
ModDetect® Anti-2'-OMe antibodies enable clear visualization of 2'-O-methyl–modified siRNA within cells, providing spatial insight into intracellular distribution. In HeLa cells, lumasiran siRNA was detected using clone OME03 (p/n 200-301-NF7), with cytoplasmic staining observed in a pattern consistent with endosomal sequestration (green). Co-staining withRAB9A and DAPI provided structural context, confirming cellular localization relative to late endosomes (red) and nuclei (blue). Sequential secondary antibody staining using Goat anti-Mouse DyLight™ 488 (p/n 610-141-121) and Goat anti-Rabbit Texas Red™ (p/n 611-1902). This data supports the use of ModDetect® for assessing cellular uptake and intracellular positioning of OMe-modified oligonucleotides. 40X magnification.



Immunofluorescence Microscopy
Immunofluorescence of Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins).
Cell line: HeLa.
Primary Antibody: Alpha Tubulin (p/n 200-301-880) at 4 µg/mL (1:250) for 1hr at RT.
Secondary Antibody: Goat Anti-Mouse DyLight™ 488 (p/n 610-141-121) at 1 µg/mL (1:1000) overnight at 4 °C.
Fixative: Ice Cold Methanol.
Permeabilization: Ice Cold Methanol.
Nuclear stain: Hoechst 33342.
Expected Localization: Cytoplasmic.
Image: A) Alpha Tubulin, B) Nuclear Stain, C) Merge, D) Secondary Only Control.



Immunofluorescence Microscopy
Immunofluorescence of Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins).
Cell line: HeLa. Primary Antibody: Alpha Tubulin (p/n 200-301-880) at 4 µg/mL (1:250) for 1hr at RT. Secondary Antibody: Goat Anti-Mouse DyLight™ 488 (p/n 610-141-121) at 0.1µg/mL (1:10000) overnight at 4 °C. Fixative: Ice Cold Methanol. Permeabilization: Ice Cold Methanol. Nuclear stain: Hoechst 33342. Magnification: 40X. Expected Localization: Cytoplasmic. Image: HeLa cell nucleus in the anaphase stage of mitosis. Microtubule-based mitotic spindles are clearly visible.

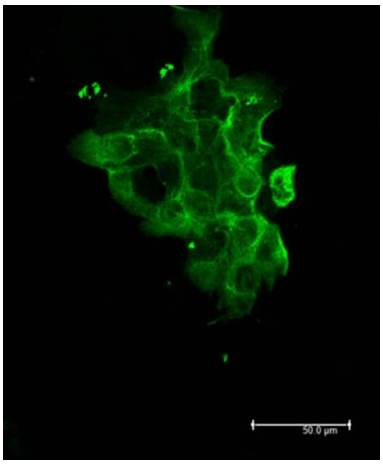


Immunofluorescence Microscopy
Immunofluorescence of Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins). Cell line: HeLa. Primary Antibody: Alpha Tubulin (p/n 200-301-880) at 4 µg/mL (1:250) for 1hr at RT. Secondary Antibody: Goat Anti-Mouse DyLight™ 488 (p/n 610-141-121) at 0.1 µg/mL (1:10000) overnight at 4 °C. Fixative: Ice Cold Methanol. Permeabilization: Ice Cold Methanol. Nuclear stain: Hoechst 33342. Magnification: 40X. Expected Localization: Cytoplasmic. Image: HeLa cell nucleus in the metaphase stage of mitosis. Microtubule-based mitotic spindles are clearly visible.

Diagram

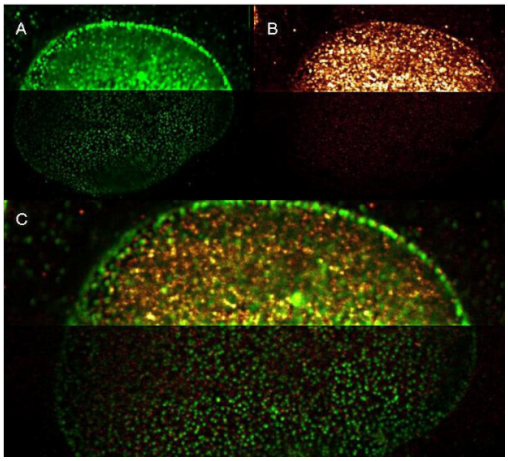
Properties of DyLight™ Fluorescent Dyes.

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®, IRDye™ 700
Infrared		800	770/794	270,000	IRDye™ 800

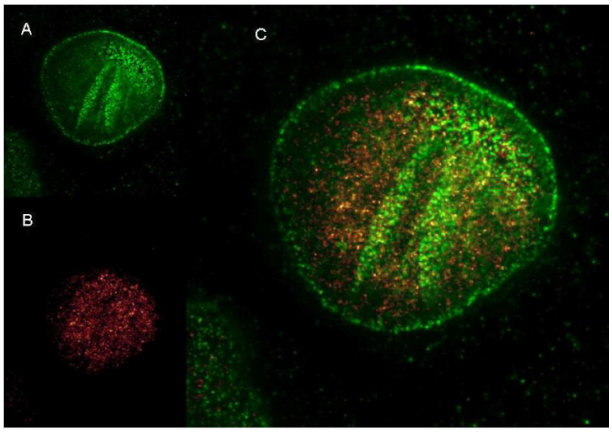


Immunofluorescence Microscopy

Rockland Dylight 488 Goat Anti Mouse IgG antibody- Immunofluorescence Cell Type: A431 cells Fixation: 4% paraformaldehyde 10 min Permeablization: 0.5% Triton X 30 min Primary Ab: 200-301-880 lot 28977 1:250 72 hours 4°C Secondary Ab: 610-141-121 lot 21286 1:1000 overnight 4°C



Immunofluorescence Microscopy
Rockland DyLight and ATTO dye conjugated antibodies provide high signal and low background for confocal microscopy (upper images) and high resolution Stimulated Emission Depletion (STED) Microscopy (lower images). Both Dylight and ATTO conjugated secondary antibodies maintained robust, intense signal during repeated laser excitation and de-excitation used during STED microscopy. Shown here are: A. (Green) Mouse anti NuP (NuP=Nuclear Pore Protein) detected with Dylight 488 Goat anti mouse (610-141-121) B. (Red) Rabbit Anti Ezh1/2 Pab (Ezh=enhancer of zeste homology) with detection by Rockland ATTO 425 conjugated Goat anti Rabbit (611-151-122) (Red and Green) Images combined. Data was collected on a STED-CW TCS-SP5 Confocal system (Leica Microsystems) equipped with a DFC 350FX Camera allowing sequential acquisition in widefield, confocal and STED CW imaging modes and provided courtesy of: Myriam Gastard, PhD, personal communication, Leica Microsystems, Inc. USA



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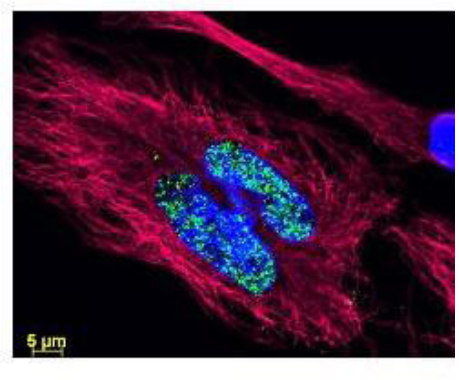
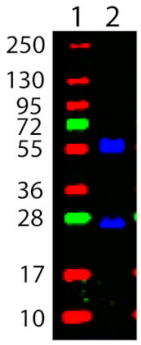
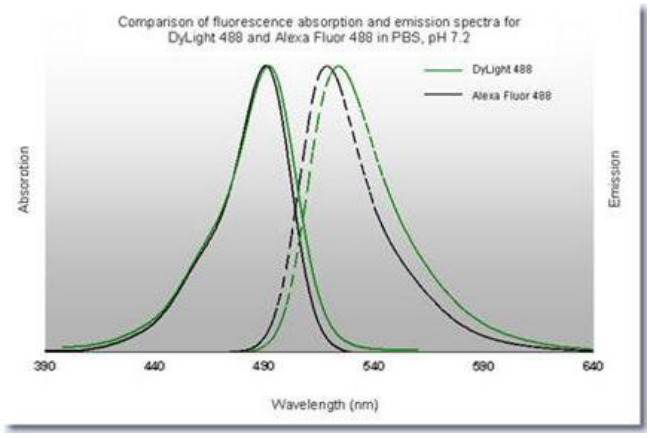


Immunofluorescence Microscopy
DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone 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).



Western Blot
Western Blot showing detection of Mouse IgG, heavy and light chain. 100 ng of Mouse IgG (Lane 2) was run on a 4-20% gel and transferred to 0.45 µm nitrocellulose. After blocking with 1% BSA-TTBS (p/n MB-013, diluted to 1X) 30 min at 20°C, Anti-MOUSE IgG (H&L) (GOAT) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins) (p/n 610-141-121) secondary antibody was used at 1:1000 in Blocking Buffer for Fluorescent Western Blotting (p/n MB-070) and imaged using the Bio-Rad VersaDoc® 4000 MP. Molecular weight markers are in lane 1.



Diagram

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