

Datasheet for 611-141-122**Rabbit IgG (H&L) Antibody DyLight™ 488 Conjugated Pre-Adsorbed****Overview**

Description:	Goat Anti-Rabbit IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins) - 611-141-122
Item No.:	611-141-122
Size:	100 µg
Applications:	WB, IF, Multiplex
Reactivity:	Rabbit
Host Species:	Goat

Product Details

Background:	Anti-Rabbit IgG (H&L) DyLight 488 Antibody generated in goat detects reactivity to Rabbit 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 complement 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-Rabbit IgG Antibody DyLight™488 Conjugation, Goat anti-Rabbit IgG DyLight™ 488 Conjugated Antibody
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 488
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	5.4

Specific Activity: 6.5

Target Details

Reactivity: Rabbit

Immunogen: Rabbit IgG whole molecule

Purity/Specificity: This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rabbit 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, Rabbit IgG and Rabbit Serum. No reaction was observed against Bovine, Chicken, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Rat and Sheep Serum Proteins. This antibody will react with heavy chains of rabbit IgG and with light chains of most rabbit immunoglobulins.

Application Details

Tested Applications: WB

Suggested Applications: IF, Multiplex (Based on references)

Application Note: Anti-Rabbit IgG (H&L) DyLight 488 Antibody has been tested by 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. 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: >1:10,000-1:25,000

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

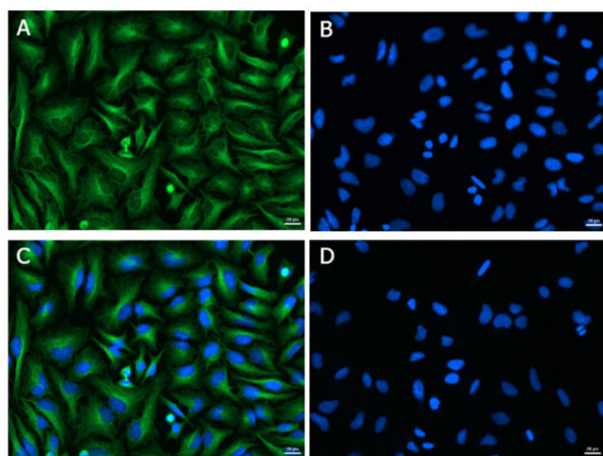
Preservative: 0.01% (w/v) Sodium Azide

Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	100 μ L
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

Immunofluorescence of Goat Anti-Rabbit IgG (H&L) Antibody DyLight™ 488 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rt & Sh Serum Proteins).

Cell line: HeLa.

Primary Antibody: Alpha Tubulin (p/n 600-401-880) at 4.4 μ g/mL (1:250) for 1hr at RT.

Secondary Antibody: Goat Anti-Rabbit DyLight™ 488 (p/n 611-141-122) at 1 μ g/mL (1:1000) overnight at 4 °C.

Fixative: Ice Cold Methanol.

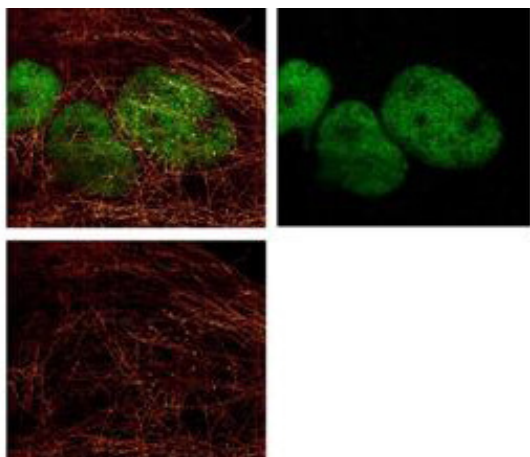
Permeabilization: Ice Cold Methanol.

Nuclear stain: Hoechst 33342.

Expected Localization: Cytoplasmic.

Image: A) Alpha Tubulin, B) Nuclear Stain, C) Merge, D)

Secondary Only Control.



Immunofluorescence Microscopy

DyLight™ 488 conjugated anti-Rabbit IgG was used to demonstrate 2 color STED immunofluorescence microscopy. Methanol fixed A431 cells were blocked with normal goat serum. The cells were then probed with 0.4 µg/mL final concentration of anti-HDAC and detected with 0.2 µg/mL DyLight™488 conjugated Anti-RABBIT IgG [GOAT] secondary antibody (colored GREEN). Also shown in this 2-color STED image is Rockland's α-tubulin monoclonal antibody [MOUSE] (p/n 200-301-880) detected with ATTO® 425 conjugated anti-MOUSE IgG [GOAT] (610-151-121) secondary antibody (colored RED). Image courtesy of Myriam Gastard, Leica Microsystems, USA.

Diagram

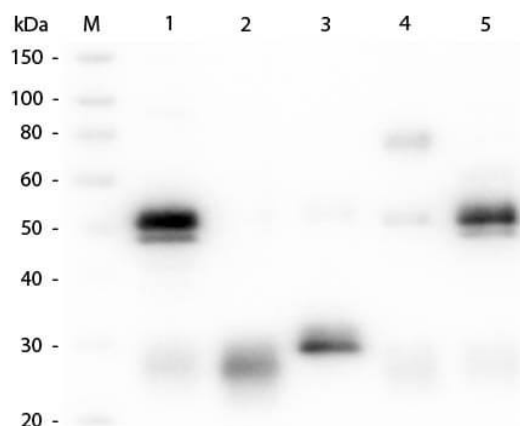
Properties of DyLight™ Fluorescent Dyes.

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

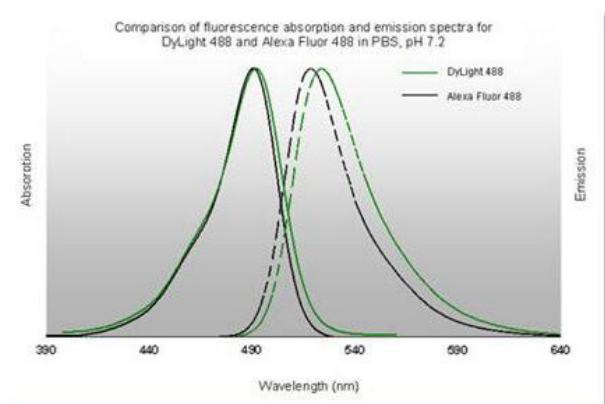
DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight™ 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 of Unconjugated Anti-Rabbit IgG (H&L) (GOAT) Antibody (Min X Bv, Ch, Gt, GP, Ham, Hs, Hu, Ms, Rt & Sh Serum Proteins) (p/n 611-101-122). Lane M: 3 μ l Molecular Ladder. Lane 1: Rabbit IgG whole molecule (p/n 011-0102). Lane 2: Rabbit IgG F(ab) Fragment (p/n 011-0105). Lane 3: Rabbit IgG F(c) Fragment (p/n 010-0103). Lane 4: Rabbit IgM Whole Molecule (p/n 011-0107). Lane 5: Normal Rabbit Serum (p/n B309). All samples were reduced. Load: 50 ng per lane. Block: MB-070 for 30 min at RT. Primary Antibody: Anti-Rabbit IgG (H&L) (GOAT) Antibody (Min X Bv, Ch, Gt, GP, Ham, Hs, Hu, Ms, Rt & Sh Serum Proteins) (p/n 611-101-122) 1:1,000 for 60 min at RT. Secondary antibody: Anti-Goat IgG (DONKEY) Peroxidase Conjugated Antibody (p/n CUST10) 1:40,000 in MB-070 for 30 min at RT. Predicted/Observed Size: 25 and 50 kDa for Rabbit IgG and Serum, 25 kDa for F(c) and F(ab), 70 and 23 kDa for IgM. Rabbit F(c) migrates slightly higher.

Diagram



References

- Iguchi, N et al. Functional constipation induces bladder overactivity associated with upregulations of Htr2 and Trpv2 pathways. *Scientific Reports* (2021)

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.