

Datasheet for 610-141-002-0.5**Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated****Overview**

Description:	Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 488 Conjugated (5 X 100 µg) - 610-141-002-0.5
Item No.:	610-141-002-0.5
Size:	5 x 100 µg
Applications:	Dot Blot, IF, WB
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 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-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:	5.3

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 followed by conjugation to fluorochrome and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Mouse IgG and Mouse Serum. This antibody will react with heavy chains of Goat IgG and with light chains of most Goat immunoglobulins.

Application Details

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

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)

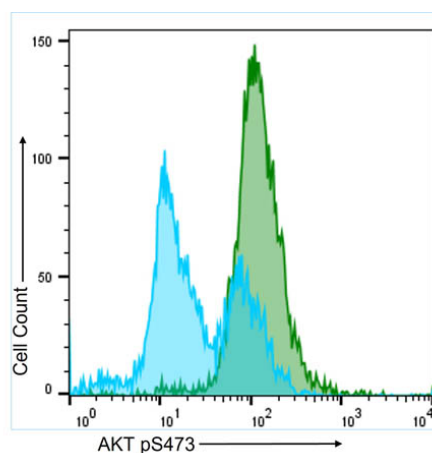
Shipping & Handling

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



Flow Cytometry

Flow Cytometry of Monoclonal Anti-AKT pS473 using Goat Anti-Mouse IgG DyLight™488. The green histogram represents the A431 cells that were stimulated for 15 minutes with 100 ng/mL EGF. The blue histogram shows the untreated A431 cell population, which is bimodal. Both populations were stained with a 1:50 dilution of the Anti-AKT pS473 (MOUSE) Monoclonal Antibody (p/n 200-301-268) for 30 mins at 4°C. The secondary antibody, the Anti-Mouse IgG (H&L) (GOAT) Antibody DyLight™ 488 Conjugated (p/n 610-141-002) was used at a 1:200 dilution for 30 mins at 4°C.

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

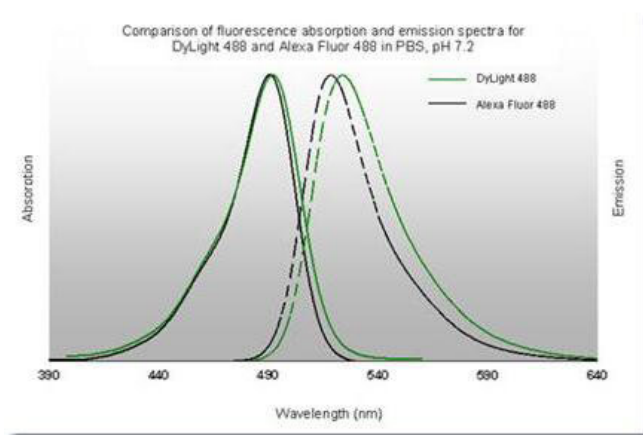
Diagram

Properties of DyLight™ Conjugates.



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

DyLight™ 488 Fluorescence Spectra

References

- MASHIMO S et al. Mitochondrial Transcription Factor A Deficiency in T Cells Leads to Activation of the Cyclic Guanosine Monophosphate-Adenosine Monophosphate Synthase/Stimulator of Interferon Genes Pathway and Production of Autoantibodies in Mice. *J Immunol Res.* (2026)
- LIN S et al. Langkat virus inhibits the gp130/JAK/STAT signaling by reducing the gp130 protein level. *J Med Virol.* (2024)
- MARIANI A et al. Neonicotinoid Pesticides Affect Developing Neurons in Experimental Mouse Models and in Human Induced Pluripotent Stem Cell (iPSC)-Derived Neural Cultures and Organoids. *Cells.* (2024)
- WANG SH et al. Insulin-like growth factor binding protein 3 promotes radiosensitivity of oral squamous cell carcinoma cells via positive feedback on NF-κB/IL-6/ROS signaling. *J Exp Clin Cancer Res.* (2021)
- MA Z et al. Porcine reproductive and respiratory syndrome virus: propagation and quantification. *Curr Protoc Microbiol.* (2018)

Disclaimer

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