

Datasheet for 610-142-002

## Mouse IgG (H&L) Antibody DyLight™ 549 Conjugated

### Overview

<b>Description:</b>	Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 549 Conjugated - 610-142-002
<b>Item No.:</b>	610-142-002
<b>Size:</b>	100 µg
<b>Applications:</b>	Dot Blot, WB, IF, Multiplex
<b>Reactivity:</b>	Mouse
<b>Host Species:</b>	Goat

### Product Details

<b>Background:</b>	Anti-Mouse IgG DyLight 549 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.
<b>Synonyms:</b>	Goat Anti-Mouse IgG Secondary Antibody DyLight™549 Conjugated, Goat Anti-Mouse IgG Antibody DyLight™549 Conjugated, Anti-mouse IgG secondary antibody, anti-mouse IgG DyLight™549 conjugated secondary antibody
<b>Host Species:</b>	Goat
<b>Specificity:</b>	IgG (H&L)
<b>Conjugate:</b>	DyLight™ 549
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG
<b>F/P Ratio:</b>	3.7

## Target Details

<b>Reactivity:</b>	Mouse
<b>Immunogen:</b>	Mouse IgG, whole molecule
<b>Purity/Specificity:</b>	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 Mouse IgG and with light chains of most Mouse immunoglobulins.

## Application Details

<b>Tested Applications:</b>	Dot Blot, WB
<b>Suggested Applications:</b>	IF, Multiplex (Based on references)
<b>Application Note:</b>	Anti-Mouse IgG DyLight 549 Antibody has been tested by dot blot and 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.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>FLISA:</b>	>1:20,000
<b>IF:</b>	>1:5,000
<b>WB:</b>	>1:10,000

## Formulation

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

**Reconstitution Buffer:** Restore with deionized water (or equivalent)

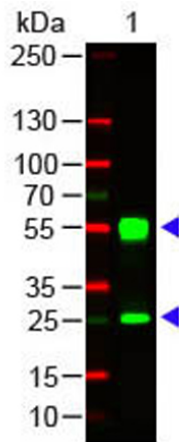
## Shipping & Handling

**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



### Western Blot

Western Blot of Goat anti-Mouse IgG (H&L) Antibody DyLight™ 549 Conjugated.

Lane 1: Mouse IgG.

Load: 50 ng per lane.







Primary antibody: None.

Secondary antibody: DyLight™ 549 goat secondary antibody at 1:1,000 for 60 min at RT.

Block: MB-070 for 30 min at RT.

Predicted/Observed size: 55 and 28 kDa for Mouse IgG.

Other Band(s): None.

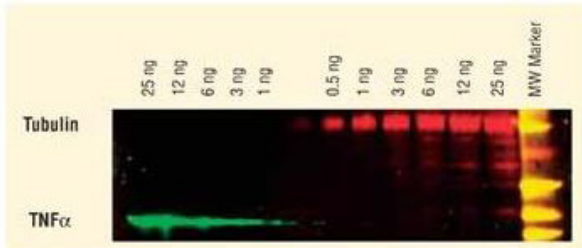
Emission	Color	DyLight™ Dye	Ex/Em (nm)	$\epsilon$ (M <sup>-1</sup> cm <sup>-1</sup> )	Similar Dyes
Blue		405	400/420	30,000	Alexa™ 405, Cascade Blue
Green		488	493/518	70,000	Alexa™ 488, Cy2®, FITC
Yellow		549	550/568	150,000	Alexa™ 546, Alexa 555, Cy3®, TRITC
Red		649	646/674	250,000	Alexa™ 647, Cy5®
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™ Fluorescent Dyes.

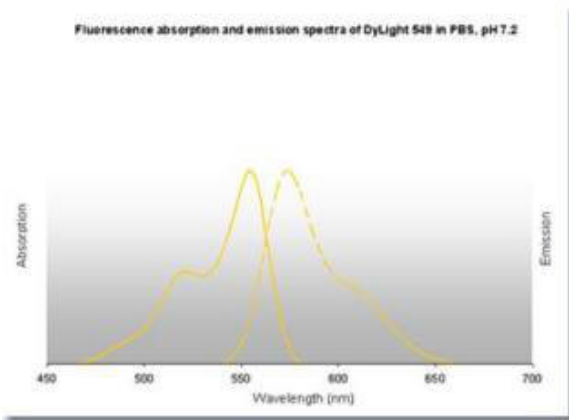
### Western Blot

DyLight™ dyes can be used for two-color Western Blot detection with low background and high signal. Anti-tubulin was detected using a DyLight™ 549 conjugate. Anti-TNF $\alpha$  was detected using a DyLight™ 649 conjugate. The image was captured using the Typhoon™ 9410 Imaging System.



### Diagram

DyLight™ 549 Fluorescence Spectra.



## References

- Wang SH et al. Insulin-like growth factor binding protein 3 promotes radiosensitivity of oral squamous cell carcinoma cells via positive feedback on NF- $\kappa$ B/IL-6/ROS signaling. *J Exp Clin Cancer Res.* (2021)
- Iguchi, N et al. Functional constipation induces bladder overactivity associated with upregulations of Htr2 and Trpv2 pathways. *Scientific Reports* (2021)
- Popp L et al. Autophagic response to cellular exposure to titanium dioxide nanoparticles. *Acta Biomater.* (2018)
- Lan H et al. Sulforaphane induces p53-deficient SW480 cell apoptosis via the ROS-MAPK signaling pathway. *Mol Med Rep.* (2017)

## Disclaimer

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