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Datasheet for 610-444-002

Mouse IgG (H&L) Antibody DyLight™ 680 Conjugated

Overview

Description:	Rabbit Anti-Mouse IgG (H&L) Antibody DyLight™ 680 Conjugated - 610-444-002
Item No.:	610-444-002
Size:	100 µg
Applications:	WB
Reactivity:	Mouse
Host Species:	Rabbit

Product Details

Background:	Anti-Mouse IgG DyLight 680 Antibody generated in rabbit 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:	rabbit anti-Mouse IgG Antibody DyLight™ 680 conjugation, rabbit anti-Mouse IgG DyLight™680 conjugated Antibody
Host Species:	Rabbit
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 680
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	2.8

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 conjugation to fluorochrome and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Rabbit 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

Suggested Applications:	WB (Based on references)
Application Note:	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

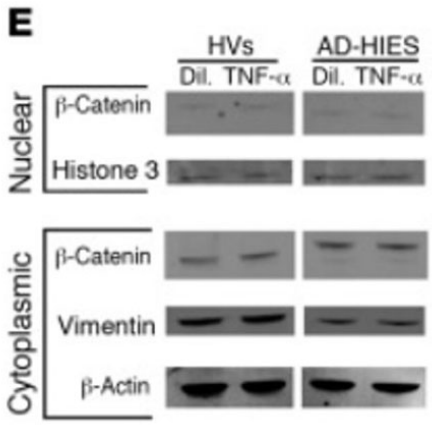
Formulation

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)

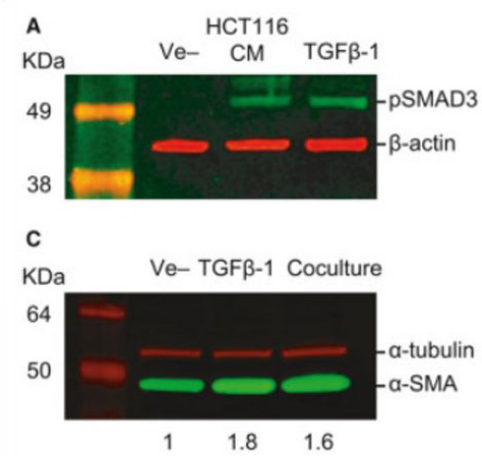
Shipping & Handling

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.

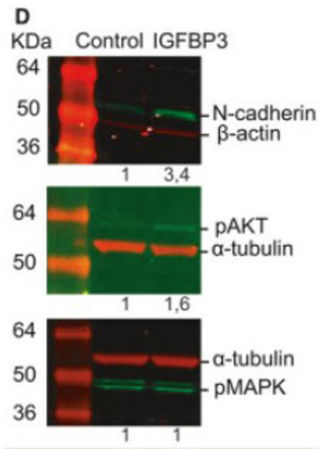
Images



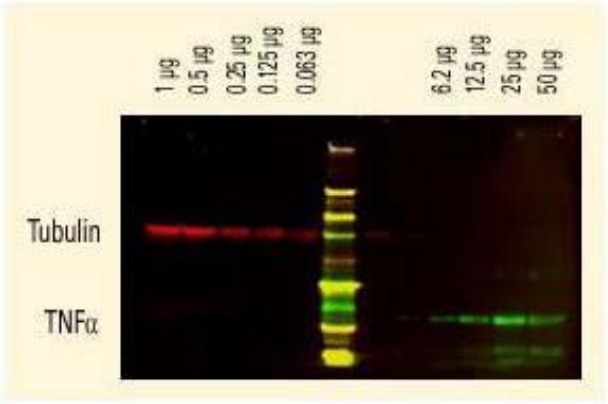
Western Blot
Skin cell cultures from patients with AD-HIES display TNF-α–sensitive defects in wound healing.
(E) Western blot of nuclear and cytoplasmic fractions from KCs obtained from HVs and AD-HIES patients (KCs were cultured with TNF-α or diluent). Figure 3. PMID: 30035749.



Western Blot
TGF-β–mediated crosstalk between pericytes and CRC cells modulates pericyte secretome. (A) Incubation in HCT116 CM for 1 h induces SMAD3 phosphorylation in PC, as assessed by western blot. Exogenous recombinant TGF-β (10 ng·mL−1) was used as a positive control, and β-actin was used as loading control (n = 3). Fig. 5. PMID: 32767843.



Western Blot
Insulin-like growth factor-binding protein 3 increases CRC cell migration and invasion through Akt activation. (D) Treatment with 50 ng·mL−1 IGFBP-3 for 72 h promotes the expression of N-cadherin in HCT116 cells as assessed by western blot (top panel). Phosphorylation status of Akt (middle panel) and MAPK (bottom panel) in HCT116 cells treated with 50 ng·mL−1 IGFBP-3 for 15 min. Representative images of three independent experiments (n = 3). Numbers indicate the expression fold change relative to the loading control. Fig. 7. PMID: 32767843.



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™ 680 conjugate. Anti-TNFa was detected using a DyLight™ 800 conjugate. The image was captured using the Odyssey® Infrared Imaging System developed by LI-COR.

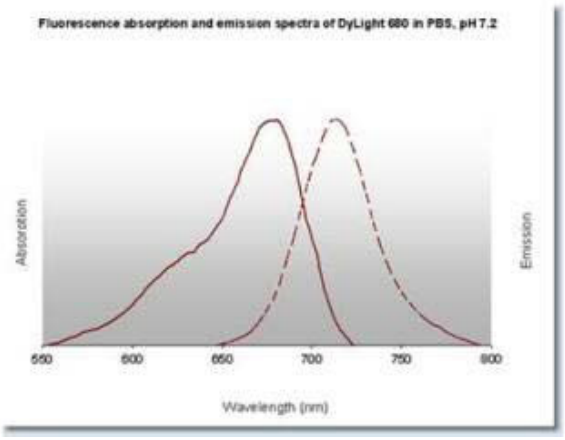


Diagram
DyLight™ 680 Fluorescence Spectra.

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

References

- Navarro R et al. TGF-β-induced IGFBP-3 is a key paracrine factor from activated pericytes that promotes colorectal cancer cell migration and invasion. *Mol Oncol.* (2020)
- Mitra S, Bodor DL, David AF, et al. Genetic screening identifies a SUMO protease dynamically maintaining centromeric chromatin. *Nat Commun.* (2020)
- Myles et al. TNF overproduction impairs epithelial staphylococcal response in hyper IgE syndrome. *Journal of Clinical Investigation* (2018)

Disclaimer

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