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Datasheet for 612-444-002

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

Overview

Description:	Rabbit Anti-Rat IgG (H&L) Antibody DyLight™ 680 Conjugated - 612-444-002
Item No.:	612-444-002
Size:	100 µg
Applications:	WB
Reactivity:	Rat
Host Species:	Rabbit

Product Details

Background:	Anti-Rat IgG (H&L) DyLight™680 Antibody generated in rabbit detects reactivity to Rat 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. This Anti-Rat IgG is conjugated to DyLight™680.
Synonyms:	Rabbit anti-Rat IgG DyLight™ 680 Conjugated Antibody, Rabbit anti-Rat IgG Antibody DyLight™680 Conjugation
Host Species:	Rabbit
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 680
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	2.8

Target Details

Reactivity:	Rat
Immunogen:	Rat IgG whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rat 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, Rat IgG and Rat Serum. This antibody will react with heavy chains of Rat IgG and with light chains of most Rat immunoglobulins.

Application Details

Tested Applications:	WB
Application Note:	Anti-Rat IgG (H&L) DyLight™680 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

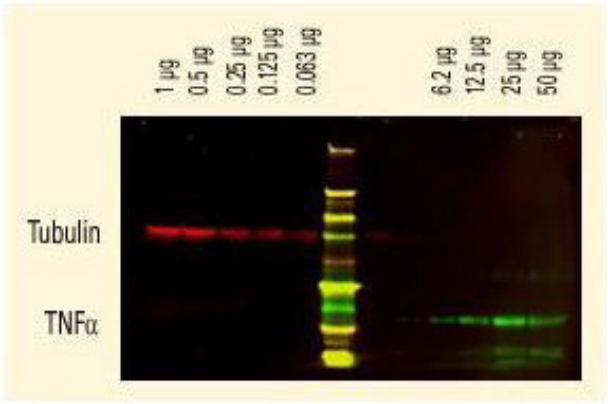
Formulation

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)

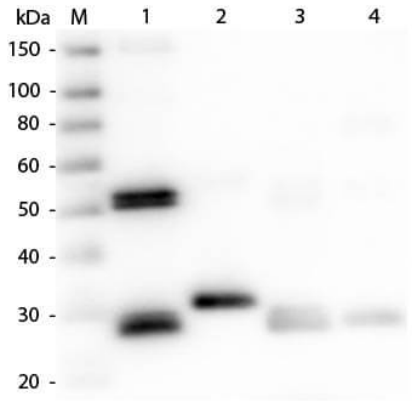
Shipping & Handling

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



Western Blot
Western Blot of Anti-Rat IgG (H&L) (RABBIT) Antibody (p/n 612-4102). Lane M: 3 µl Molecular Ladder. Lane 1: Rat IgG whole molecule (p/n 012-0102). Lane 2: Rat IgG F(c) Fragment (p/n 012-0103). Lane 3: Rat IgG Fab Fragment (p/n 012-0105). Lane 4: Rat IgM Whole Molecule (p/n 012-0107). All samples were reduced. Load: 50 ng per lane. Block: MB-070 for 30 min at RT. Primary Antibody: Anti-Rat IgG (H&L) (RABBIT) Antibody (p/n 612-4102) 1:1,000 for 60 min at RT. Secondary Antibody: Anti-Rabbit IgG (GOAT) Peroxidase Conjugated Antibody (p/n 611-103-122) 1:40,000 in MB-070 for 30 min at RT. Predicted/Observed Size: 25 and 55 kDa for Rat IgG, 25 kDa for F(c) and Fab, 78 and 25 kDa for IgM. Rat F (c) migrates slightly higher.

Diagram
DyLight™ 680 Fluorescence Spectra.

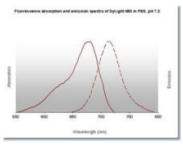
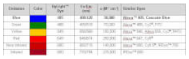


Diagram
Properties of DyLight™ Fluorescent Dyes.



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