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Datasheet for 613-444-002

# Sheep IgG (H&L) Antibody DyLight™ 680 Conjugated

## Overview

| | |
|---|---|
| **Description:** | Rabbit Anti-Sheep IgG (H&L) Antibody DyLight™ 680 Conjugated - 613-444-002 |
| **Item No.:** | 613-444-002 |
| **Size:** | 100 µg |
| **Applications:** | Dot Blot |
| **Reactivity:** | Sheep |
| **Host Species:** | Rabbit |

## Product Details

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| **Background:** | Anti-Sheep IgG (H&L) DyLight™ 680 Antibody generated in rabbit detects reactivity to sheep 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-Sheep IgG Antibody is conjugated to DyLight™680. |
| **Synonyms:** | Rabbit Anti-Sheep IgG DyLight™ 680 Conjugated Antibody, Rabbit Anti-Sheep IgG Antibody DyLight™680 Conjugation |
| **Host Species:** | Rabbit |
| **Specificity:** | IgG (H&L) |
| **Conjugate:** | DyLight™ 680 |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |
| **F/P Ratio:** | 3.6 |

## Target Details

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

## Application Details

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| **Tested Applications:** | Dot Blot |
| **Application Note:** | Anti-Sheep IgG (H&L) DyLight™ 680 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 |

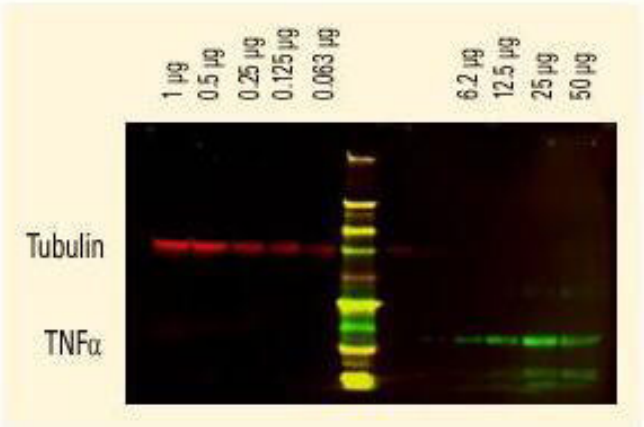
## Formulation

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|---|---|
| **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

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| **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.

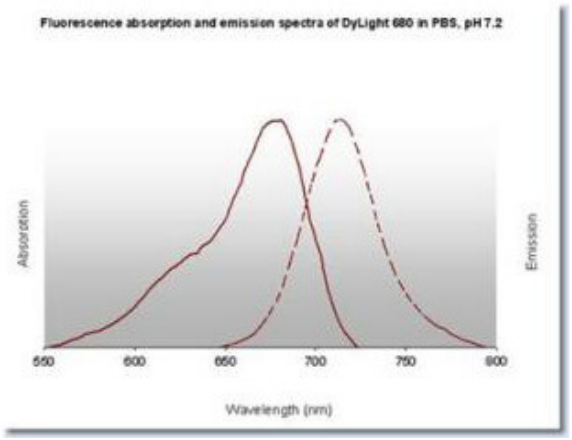



**Diagram**
DyLight™ 680 Fluorescence Spectra.

**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 |

## Disclaimer

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