

**Datasheet for 605-744-002****Goat IgG (H&L) Antibody DyLight™ 680 Conjugated****Overview**

|                      |                                                                           |
|----------------------|---------------------------------------------------------------------------|
| <b>Description:</b>  | Donkey Anti-Goat IgG (H&L) Antibody DyLight™ 680 Conjugated - 605-744-002 |
| <b>Item No.:</b>     | 605-744-002                                                               |
| <b>Size:</b>         | 100 µg                                                                    |
| <b>Applications:</b> | Dot Blot, WB                                                              |
| <b>Reactivity:</b>   | Goat                                                                      |
| <b>Host Species:</b> | Donkey                                                                    |

**Product Details**

|                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Background:</b>   | Anti-Goat IgG DyLight Antibody generated in donkey detects goat 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 heavy and light chains of the antibody molecule are present. |
| <b>Synonyms:</b>     | Donkey anti-Goat IgG Antibody DyLight™ 680 Conjugated Pre-Adsorbed, Donkey anti-Goat IgG DyLight™ 680 Conjugated Antibody                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Host Species:</b> | Donkey                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Specificity:</b>  | IgG (H&L)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Conjugate:</b>    | DyLight™ 680                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Clonality:</b>    | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Format:</b>       | IgG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>F/P Ratio:</b>    | 2.3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |

**Target Details**

|                    |      |
|--------------------|------|
| <b>Reactivity:</b> | Goat |
|--------------------|------|

|                            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Immunogen:</b>          | Goat IgG, whole molecule                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Purity/Specificity:</b> | This product was prepared from monospecific antiserum by immunoaffinity chromatography using Goat 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-Donkey Serum, Goat IgG and Goat Serum. This antibody will react with heavy chains of Goat IgG and with light chains of most Goat immunoglobulins. |

## Application Details

|                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|--------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tested Applications:</b>    | Dot Blot                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Suggested Applications:</b> | WB (Based on references)                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Application Note:</b>       | Anti-Goat IgG DyLight 680 Antibody has been tested by dot blot. 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. |
| <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

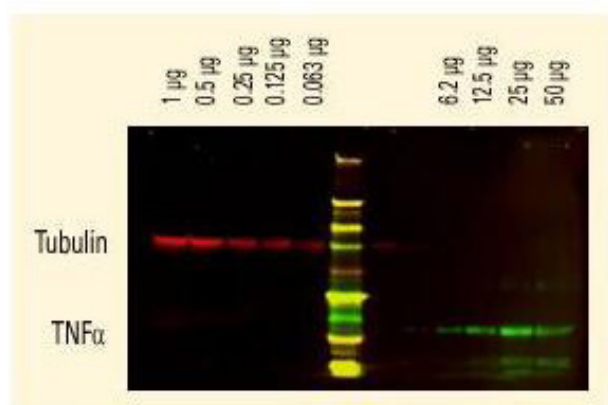
|                               |                                                                        |
|-------------------------------|------------------------------------------------------------------------|
| <b>Physical State:</b>        | Lyophilized                                                            |
| <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                                                                 |
| <b>Reconstitution Buffer:</b> | Restore with deionized water (or equivalent)                           |

## Shipping & Handling

|                            |         |
|----------------------------|---------|
| <b>Shipping Condition:</b> | Ambient |
|----------------------------|---------|

|                           |                                                                                                                                                                                                                                                                                                                                                 |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Storage Condition:</b> | 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. |
| <b>Expiration:</b>        | Expiration date is one (1) year from date of receipt.                                                                                                                                                                                                                                                                                           |

## Images



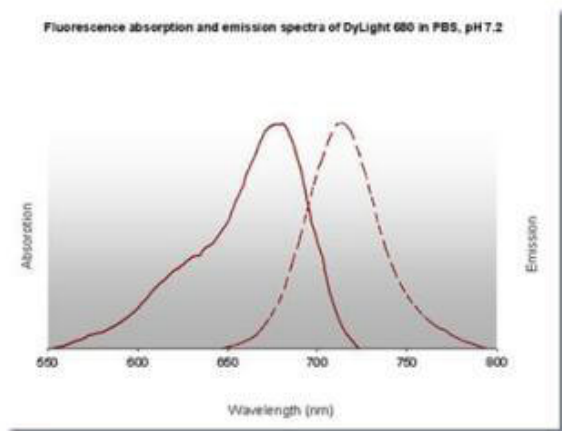
### Western Blot

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

### Diagram

Properties of DyLight™ Conjugates.

| 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

DyLight™ 680 Fluorescence Spectra.

## References

- Yuan R et al. Modulation of striatal cAMP levels: A key pathway in the treatment of hyperkinetic movement disorders. *iScience*. (2025)
- Fritz SE et al. An alternative UPF1 isoform drives conditional remodeling of nonsense-mediated mRNA decay. *EMBO J*. (2022)
- Royer L et al. The Ras-like GTPase Rem2 is a potent inhibitor of calcium/calmodulin-dependent kinase II activity. *J Biol Chem*. (2018)
- Lin et al. Emodin promotes the arrest of human lymphoma Raji cell proliferation through the UHRF1-DNMT3A-ΔNp73 pathways. *Molecular Medicine Reports* (2017)

## Disclaimer

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