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# Produktinformation

- Forschungsprodukte & Biochemikalien
- Zellkultur & Verbrauchsmaterial
- Diagnostik & molekulare Diagnostik
- Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!

## Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

## Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand


**SZABO-SCANDIC HandelsgmbH**

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

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Datasheet for 605-741-002

# Goat IgG (H&L) Antibody DyLight™ 488 Conjugated

## Overview

| | |
|---|---|
| **Description:** | Donkey Anti-Goat IgG (H&L) Antibody DyLight™ 488 Conjugated - 605-741-002 |
| **Item No.:** | 605-741-002 |
| **Size:** | 100 µg |
| **Applications:** | Dot Blot, IF |
| **Reactivity:** | Goat |
| **Host Species:** | Donkey |

## Product Details

| | |
|---|---|
| **Background:** | 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. |
| **Synonyms:** | donkey anti-Goat IgG Antibody DyLight™ 488 Conjugation, donkey anti-Goat IgG DyLight™ 488 Conjugated Antibody |
| **Host Species:** | Donkey |
| **Specificity:** | IgG (H&L) |
| **Conjugate:** | DyLight™ 488 |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |
| **F/P Ratio:** | 4.0 |

## Target Details

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| **Reactivity:** | Goat |

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| **Immunogen:** | Goat IgG, whole molecule |
| **Purity/Specificity:** | 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

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| **Tested Applications:** | Dot Blot |
| **Suggested Applications:** | IF (Based on references) |
| **Application Note:** | Anti-Goat IgG DyLight 488 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. |
| **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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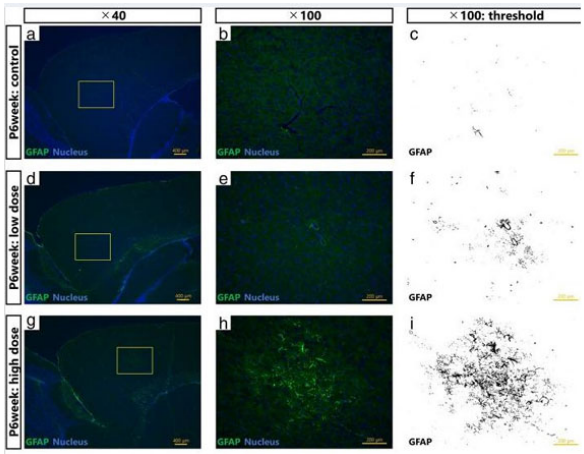
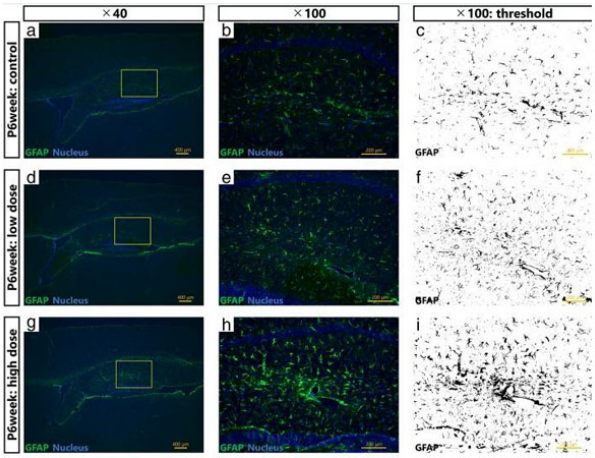
|---|---|
| **Shipping Condition:** | Ambient |

| | |
|---|---|
| **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. |

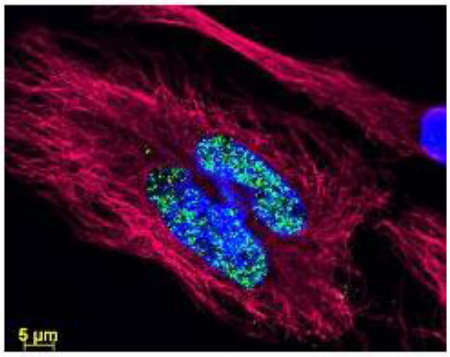
## Images




**Immunofluorescence Microscopy**
Maternal exposure to Printex 90 carbon nanoparticles dose-dependently increases expression levels of glial fibrillary acidic protein (GFAP) in astrocytes in the offspring cerebral cortex. a, b, d, e, g and h show representative fluorescent micrographs of GFAP-positive astrocytes in the cerebral cortices of 6 week old male offspring in the control (a, b), low exposure (d, e), and high exposure groups (g, h). a, d and g gives an overview of the cerebral cortex, with b, e, and h providing enlarged views hereof, respectively. c, f, and i are grayscale views of b, e, and h, respectively, for quantification of the GFAP expression. Fig 4. PMID: 30201004.




**Immunofluorescence Microscopy**
Maternal exposure to Printex 90 carbon nanoparticles dose-dependently increases expression levels of glial fibrillary acidic protein (GFAP) in astrocytes in the offspring hippocampus. a, b, d, e, g and h show representative fluorescent micrographs of GFAP-positive astrocytes in the hippocampi of 6 week old male offspring in the control (a, b), low exposure (d, e), and high exposure group (g, h). a, d and g gives an overview of the hippocampus, with b, e, and h providing enlarged views of panels a, d, and g, respectively. c, f, and i are grayscale views of b, e, and h, respectively, for quantification of GFAP expression. Fig. 5. PMID: 30201004.




**Immunofluorescence Microscopy**
DyLight™ dyes can be used for multi-color immunofluorescence microscopy with uniform fluorescence intensity throughout the image. DyLight™ dyes are exceptionally bright and photostable and are optimized for microscopy and microarray detection methods. This image shows anti-histone detection using a DyLight™ 488 conjugate (green). Anti-Tubulin was detected using a DyLight™ 549 conjugate (red). Nuclei were counter-stained using DAPI (blue). The image was captured using an Axio Imager.Z1 (Zeiss Micro Imaging Inc).

**Diagram**
Properties of Dylight™ Conjugates.

| 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 |

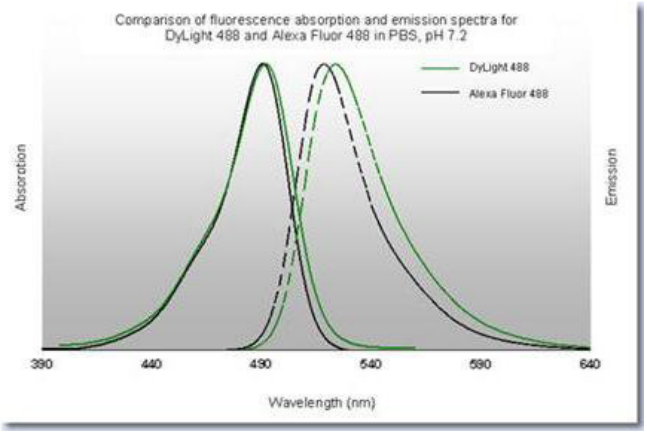



**Diagram**
DyLight™ 488 Fluorescence Spectra.

## References

- Liu SM et al. The gut signals to AGRP-expressing cells of the pituitary to control glucose homeostasis. *J Clin Invest.* (2023)
- Umezawa M et al. Maternal inhalation of carbon black nanoparticles induces neurodevelopmental changes in mouse offspring. *Particle and Fibre Toxicology* (2018)

## Disclaimer