

Datasheet for 610-146-002

Mouse IgG (H&L) Antibody DyLight™ 405 Conjugated**Overview**

Description:	Goat Anti-Mouse IgG (H&L) Antibody DyLight™ 405 Conjugated - 610-146-002
Item No.:	610-146-002
Size:	100 µg
Applications:	IF, IHC, Multiplex
Reactivity:	Mouse
Host Species:	Goat

Product Details

Background:	Anti-Mouse IgG DyLight 405 Antibody generated in goat 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 complement 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:	Goat Anti-Mouse IgG Secondary Antibody DyLight™405 Conjugated, Goat Anti-Mouse IgG Antibody DyLight™405 Conjugated, Anti-mouse IgG secondary antibody, anti-mouse IgG DyLight™405 conjugated secondary antibody
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 405
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	3.5

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 followed by conjugation to fluorochrome and extensive dialysis against the buffer stated above. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat 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:	IF, IHC, Multiplex (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

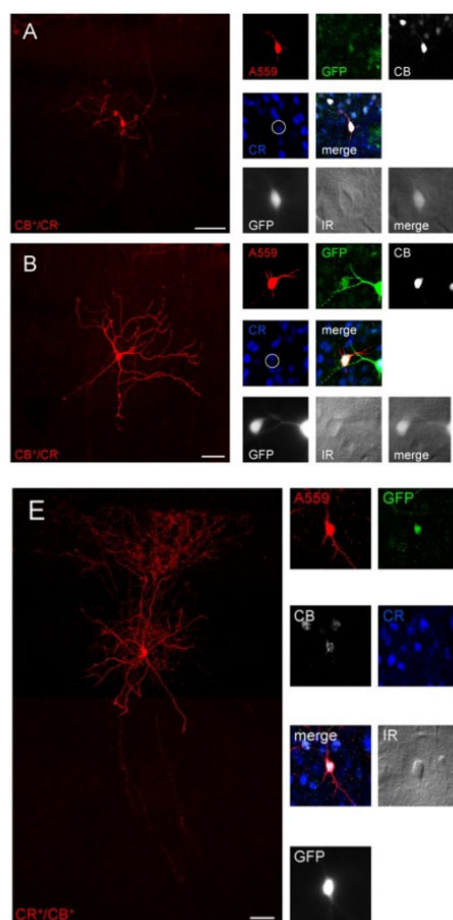
Formulation

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



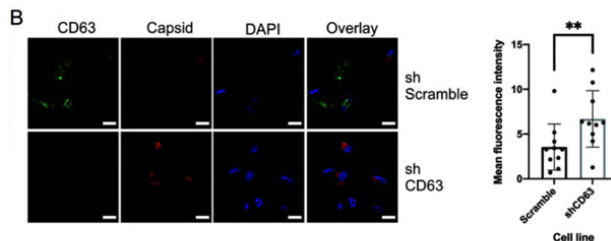
Immunofluorescence Microscopy

Morphological variety of group I GIN.

A-B left panel Confocal z-stack images as maximum intensity projections of representative group I GIN. Scalebars: 50µm. Right panel Immunolabeling of biocytin-injected cells for GFP (green), anti-calbindin [CB] (white), anti-calretinin [CR] (blue), or NPY (red). Note the lack of CB expression of the GIN shown in A and B (white open circle). Fluorescence (white, GFP) and infrared (IR)-DIC (grey) images of recorded cells were acquired prior recording. (C-E not shown). Fig 8. PMID: 30001424.

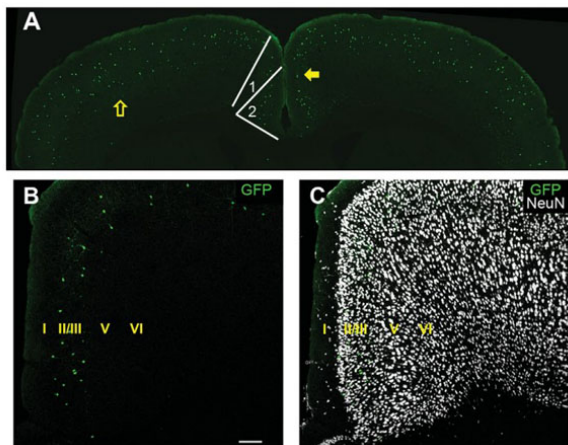
Immunofluorescence Microscopy

Morphological varieties in group II GIN. Many group I GIN classified as Martinotti cells with massive axonal arborizations in layer 1 and in the home layer. All scalebars: 50µm. (E) left panel Confocal Z-stack images of biocytin-injected GIN as maximum intensity projections. Right panel Corresponding immunolabelings of the cells shown in the left panel. Cells were labeled for GFP (green), calretinin [CR] (blue), calbindin [CB] (white), or NPY (red). Fluorescence (GFP, white) and infrared-DIC (grey) images were acquired of cells in A-F prior recording. Remaining images (A-D, F) not shown. Fig 9. PMID: 30001424.



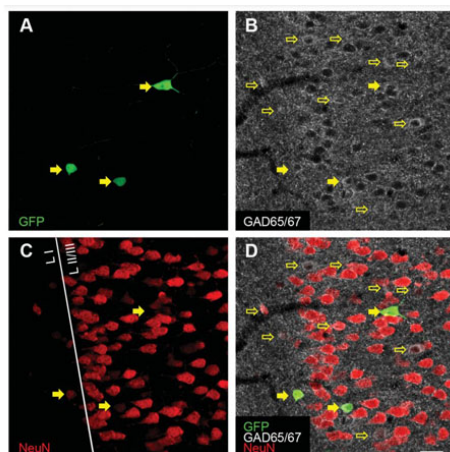
Immunofluorescence Microscopy

CD63 localization is altered with Zika virus infection, and the expression levels of CD63 affect the cellular localization of Zika virus capsid protein. (B) SNB-19 inducible shRNA scramble or CD63 knockdown cells were fixed for IF for Zika virus capsid proteins 48 h post infection. Scale bars = 20 μ m. FIG 5. PMID: 34190582.



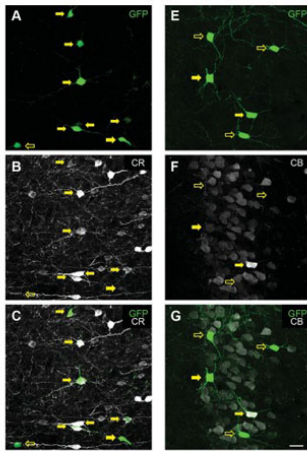
Immunofluorescence Microscopy

Laminar distribution of GFP-expressing inhibitory interneurons (GINs) in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A: The low-power photomicrograph shows the distribution of GFP-expressing neurons in the neocortex of a GIN mouse. For overview, a tile scan of multiple confocal images was acquired, and individual images were stitched together. The solid yellow arrow points to the cingulate cortex, and the open yellow arrow to the sensorimotor cortex. B,C: Representative confocal images of GFP 1 (green) and NeuN 1 (white) neurons in the mouse cingulate cortex. Roman numbers I–VI designate cortical layers I–VI. D: Layer-specific distribution (mean $\pm$ standard deviation) of relative numbers of GFP-expressing cells in the cingulate cortex. Roman numbers I–VI designate cortical layers I–VI. Scale bar in C 5 340 μ m in A and 100 μ m in B,C. Figure 2. PMID: 26669716.



Immunofluorescence Microscopy

Analysis of GABAergic interneurons in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A–D: Representative confocal images of GFP 1 cells (green) immunopositive for GAD65/67 (white) and NeuN (red). Solid yellow arrows indicate GFP1/NeuN1/GAD65/67 1 cells and open yellow arrows GFP-/NeuN1/GAD65/67 1 cells. LI, layer I; LII/III, layers II–III. E: Mean $\pm$ standard deviation of GAD65/67-, SOM- and GFP-expressing cells in layers I–III of the cingulate cortex of the GIN mouse. GAD, GAD65/67. F: Mean $\pm$ standard deviation of relative numbers of GFP2/GAD65/67 1 and GFP1/GAD65/67 1 cells in the cingulate cortex. Scale bar 5 20 μ m in D (applies to A–D). Figure 3. PMID: 26669716.

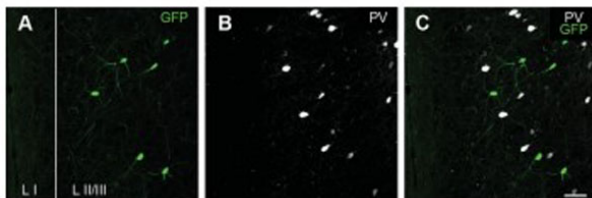


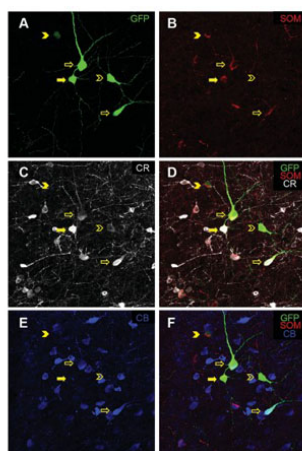
Immunofluorescence Microscopy

Analysis of calretinin (CR)- and calbindin (CB)-expressing interneurons in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A–C: Representative confocal images of GFP1 cells (green) costained for calretinin (CR, white). Solid yellow arrows indicate GFP1/CR 1 cells and open yellow arrows GFP1/CR2 cells. D: Mean 6 standard deviation of relative numbers of GFP1/CR 1 and GFP1/CR2 cells in the cingulate cortex. E–G: Representative confocal images of GFP1 cells (green) labeled for CB (white) in layers II–III of the cingulate cortex. Solid yellow arrows indicate GFP1/CB 1 cells and open yellow arrows GFP1/CB2 cells. H: Mean 6 standard deviation of GFP1/CB 1 and GFP1/CB2 cells in the cingulate cortex. Scale bar in G is 20 μm in G (applies to A–C, E–G). Figure 5. PMID: 26669716.

Immunofluorescence Microscopy

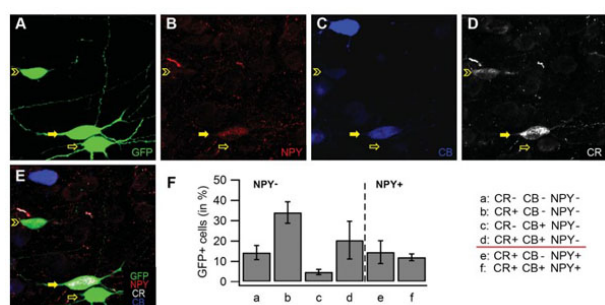
Analysis of parvalbumin (PV)-expressing interneurons in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A–C: Representative confocal images of GFP1 cells (green) in layers II–III of the cingulate cortex labeled for PV (white). No GFP1/ PV 1 cells were observed. LI, cortical layer I; LII/III, cortical layers II–III. Scale bar is 40 μm in C (applies to A–C). Figure 6. PMID: 26669716.





Immunofluorescence Microscopy

Analysis of somatostatin (SOM)-, calretinin (CR)-, and calbindin (CB)-expressing interneurons in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A–F: Representative confocal images of GFP1 cells (green) immunopositive for SOM (red), CR (white), and CB (blue) in layers II–III of the cingulate cortex. Open yellow arrows indicate GFP1/SOM1/CR1/CB1 cells, solid yellow arrows GFP1/SOM1/CR1 cells, open yellow arrowheads GFP1/SOM2/CR1 cells, and solid yellow arrowheads GFP1/SOM1/CR1/CB1 cells. G: Mean 6 standard deviation of relative numbers of GFP1/SOM2/CR2/CB2 cells (a), GFP1/SOM2/CR1/CB2 cells (b), GFP1/SOM1/CR2/CB2 cells (c), GFP1/SOM1/CR2/CB1 cells (d), GFP1/SOM1/CR1/CB2 cells (e), and GFP1/SOM1/CR1/CB1 cells (f) in the cingulate cortex. Scale bar 5 20 lm in F (applies to A–F). Figure 7. PMID: 26669716.



Immunofluorescence Microscopy

Analysis of coexpression of calretinin (CR), calbindin (CB), and NPY in GFP1 cells in the cingulate cortex of FVB-Tg(GadGFP)45704Swn/J mice. A–E: Representative confocal images of cells in layers II–III of the cingulate cortex immunopositive for GFP (green), NPY (red), CR (white), and CB (blue). The solid yellow arrow indicates GFP1/CR1/CB1/NPY1 cells, the open yellow arrow indicates GFP1/CR2/CB2/NPY2 cells, and the open yellow arrowhead indicates GFP1/CR1/CB1/NPY2 cells. F: Mean 6 standard deviation of relative numbers of GFP1/CR2/CB2/NPY2 cells (a), GFP1/CR1/CB2/NPY2 cells (b), GFP1/CR2/CB1/NPY2 cells (c), GFP1/CR1/CB1/NPY2 cells (d), GFP1/CR1/CB2/NPY1 cells (e), and GFP1/CR1/CB1/NPY1 cells (f). Scale bar 5 20 lm in E (applies to A–E). Figure 11. PMID: 26669716.

References

- York SB et al. Zika virus hijacks extracellular vesicle tetraspanin pathways for cell-to-cell transmission. *mSphere*. (2021)
- Riedemann et al. Two types of somatostatin-expressing GABAergic interneurons in the superficial layers of the mouse cingulate cortex. *PLOS One* (2018)
- Riedemann T et al. Immunocytochemical heterogeneity of somatostatin-expressing GABAergic interneurons in layers II and III of the mouse cingulate cortex: A combined immunofluorescence/design-based stereologic study. *J Comp Neurol*. (2016)

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.