

Datasheet for 611-146-002

Rabbit IgG (H&L) Antibody DyLight™ 405 Conjugated

Overview

Description:	Goat Anti-Rabbit IgG (H&L) Antibody DyLight™ 405 Conjugated - 611-146-002
Item No.:	611-146-002
Size:	100 µg
Applications:	IF, IHC
Reactivity:	Rabbit
Host Species:	Goat

Product Details

Background:	Anti-Rabbit IgG (H&L) DyLight 405 Antibody generated in goat detects reactivity to Rabbit 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.
Synonyms:	Goat anti-Rabbit IgG Antibody DyLight™405 Conjugation, Goat anti-Rabbit IgG DyLight™ 405 Conjugated Antibody
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 405
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	3.5

Target Details

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

Application Details

Suggested Applications:	IF, IHC (Based on references)
Application Note:	Anti-Rabbit IgG (H&L) DyLight 405 Antibody 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)

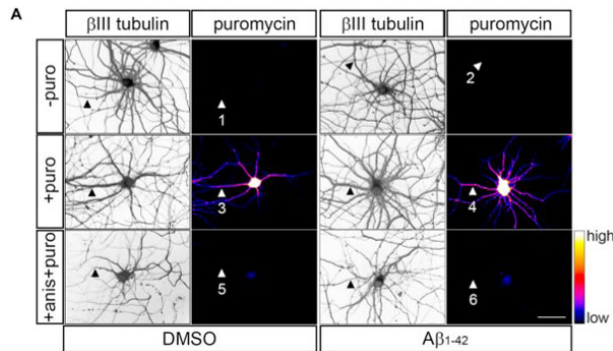
Shipping & Handling

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.

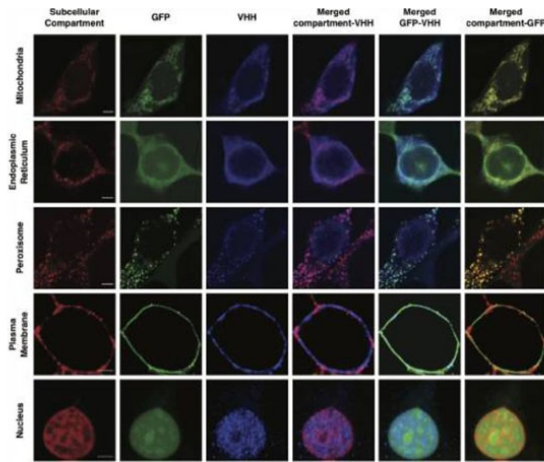
Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunocytochemistry

Detection of newly synthesized proteins by puromycilation. (A) Rat hippocampal neurons were grown for 9 DIV and were treated with DMSO (left panels) or A β 1–42 oligomers (right panels) for 24 h. Before fixing, cells were incubated with vehicle (-puro; neurites 1 and 2), with puromycin (+ puro; neurites 3 and 4) or with puromycin and anisomycin (+ anis + puro; neurites 5 and 6) for 30 mins. Cells were immunostained with rabbit anti- β III tubulin antibody (1:500) to visualize the neuronal cytoskeleton (gray) and with a mouse anti-puromycin antibody (1:500) to analyze newly synthesized proteins (heatmaps). Secondary anti-rabbit DyLight 405 (1:200, 611-146-002). Scale bar, 50 μ m. Fig 2. PMID: 32581689.



Immunofluorescence Microscopy







NanoLoc-mediated control of GFP subcellular localization.

Representative confocal microscopy images of HEK293/GFP#1 cells transiently transfected for the expression of VHHLoc variants and analyzed 72 h post-transfection. Subcellular compartment (red, column 1); GFP (green, column 2); VHH (blue, anti-HA, column 3); colocalization of subcellular compartment and VHH shown in merged images (purple, column 4); colocalization of GFP and VHH shown in merged images (cyan, column 5); colocalization of subcellular compartment and GFP shown in merged images (yellow, column 6). Scale bars: 5 μm .

Brightness and contrast levels were adjusted and images of cells treated the same were subjected to the same adjustment. Pseudo-coloring was applied to the subcellular compartment stain and VHH images for the plasma membrane and the nucleus. Primary antibodies: rabbit anti-HA (VHH), 1:250, mouse anti-calnexin (endoplasmic reticulum membrane) 1:50; mouse anti-PMP70 (peroxisome) 1:50, with secondary antibodies: goat anti-rabbit DyLight 405 conjugated, (p/n 611-146-002) 1:200, goat anti-rabbit DyLight 549 conjugated, (p/n 611-142-002) 1:500, and goat anti-mouse DyLight 549 conjugated, (1:500). Fig 1. PMID: 33763602.

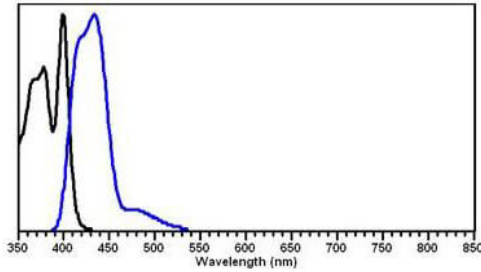
Diagram

Properties of DyLight™ Fluorescent Dyes.

Emission	Color	DyLight™ Dye	Ex/Em (nm)	ϵ ($\text{M}^{-1} \text{cm}^{-1}$)	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™ 405 Fluorescence absorption

**References**

- Jayanthi B et al. A platform for post-translational spatiotemporal control of cellular proteins. *Synth Biol (Oxf)*. (2021)
- Gamarra M et al. Object-based analyses in Fiji/ImageJ to measure local RNA translation sites in neurites in response to A β 1-42 oligomers. *Front Neurosci*. (2020)

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.