

Datasheet for 606-142-129**Guinea Pig IgG (H&L) Antibody DyLight™ 549 Conjugated Pre-Adsorbed****Overview**

Description:	Goat Anti-Guinea Pig IgG (H&L) Antibody DyLight™ 549 Conjugated (Min X Bv Ch Gt Ham Hs Hu Ms Rb Rt & Sh Serum Proteins) - 606-142-129
Item No.:	606-142-129
Size:	100 µg
Applications:	IF, IHC, Multiplex
Reactivity:	Guinea Pig
Host Species:	Goat

Product Details

Background:	Anti-Guinea Pig IgG DyLight Antibody generated in goat detects guinea pig 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 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-Guinea Pig IgG DyLight 549™ Conjugation, Goat Anti Guinea Pig IgG DyLight 549™ conjugated
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	DyLight™ 549
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	3.6

Target Details

Reactivity:	Guinea Pig
Immunogen:	Guinea Pig IgG whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Guinea Pig IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Goat Serum, Guinea Pig IgG and Guinea Pig Serum. No reaction was observed against Bovine, Chicken, Goat, Hamster, Horse, Human, Mouse, Rabbit, Rat or Sheep Serum Proteins. This antibody will react with heavy chains of Guinea Pig IgG and with light chains of most Guinea Pig immunoglobulins.

Application Details

Suggested Applications:	IF, IHC, Multiplex (Based on references)
Application Note:	The emission spectra for this DyLight™ conjugate match the principle output wavelengths of most common fluorescence instrumentation. 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.
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

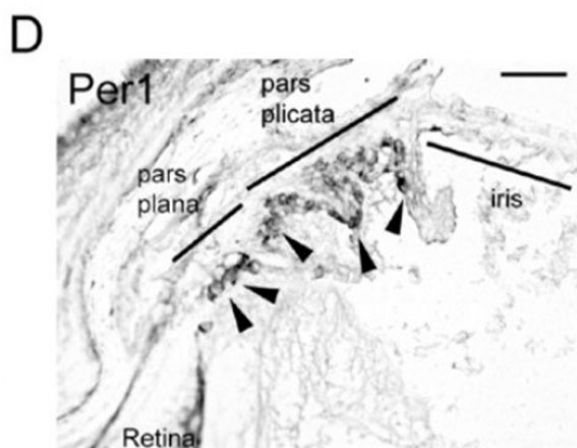
Formulation

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

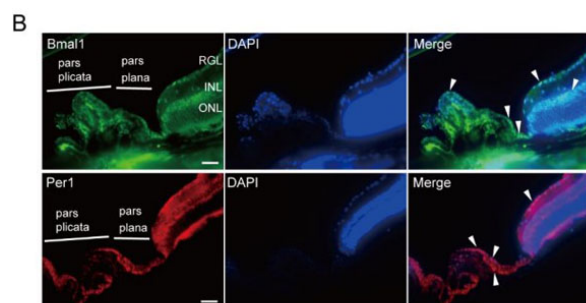
Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for 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



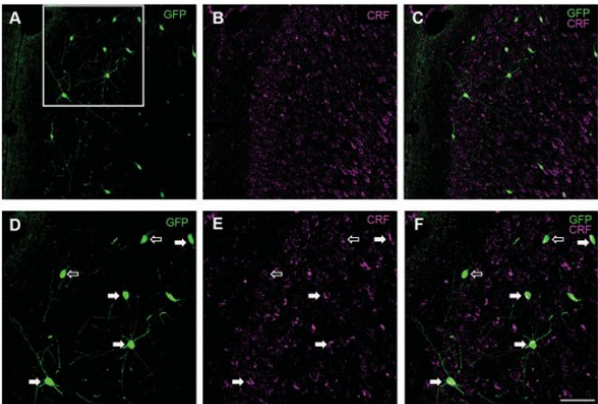
Immunohistochemistry

Localizations of GR, Adrb2, and Bmal1 in the ciliary body. Representative images of (A) GR, (B) adrenergic β 2-receptors (Adrb2), (C) Bmal1, and (D) Per1 immunoreactivity in the retina and ciliary body of albino Balb/c mice by immunohistochemistry. Strong immunoreactivity (arrowhead) was seen in the pars plana of the ciliary body. Scale bar: 100 μ m. CPE, ciliary pigmented epithelium; INL, inner nuclear layer; ONL, outer nuclear layer; RGL, retinal ganglion cell layer; TM, trabecular meshwork. Figure 3. PMID: 32182332.



Immunofluorescence Microscopy

Immunohistochemical analysis in the retina and ciliary body of C57BL/6J mice. (A) Adrenergic β 2-receptors (Adrb2) and glucocorticoid receptor (GR) immunoreactivity in the retina and ciliary body of C57BL/6J mice. (B) Immunoreactivity of clock protein Bmal1 and Per1 in the retina and ciliary body of C57BL/6J mice. Fluorescence immunohistochemistry revealed that immunoreactivity (white arrowhead) localized in the epithelia of the ciliary body. Scale bar: 100 μ m. DAPI, 4',6-diamidino-2-phenylindole. RGL, retinal ganglion cell layer; INL, inner nuclear layer; ONL, outer nuclear layer. Fig. S4. PMID: 32182332.

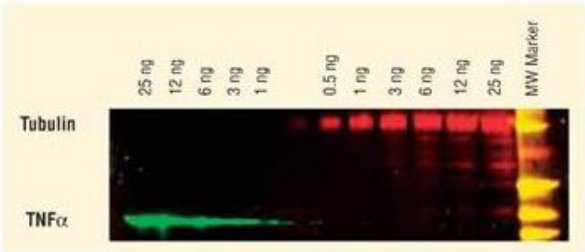


Immunofluorescence Microscopy

Analysis of corticotropin-releasing factor (CRF)-expressing interneurons in the cingulate cortex of FVB-Tg (GadGFP)45704Swn/J mice. A–C: Representative confocal images of cells in the cingulate cortex immunopositive for GFP (green) and CRF (magenta). The white square in A represents the area that is shown at higher magnification in D–F. D–F: Detailed analysis of CRF expression in GFP+ cells in the cingulate gyrus. Solid white arrows indicate GFP1/CRF+ cells and open white arrows GFP1/CRF- cells. Note the widespread CRF+ punctae throughout cells in layers II–III of the cingulate cortex. Scale bar in F 50 μm for A–C; 25 μm for D–F. Figure 9. PMID: .26669716

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™ 549 conjugate. Anti-TNFα was detected using a DyLight™ 649 conjugate. The image was captured using the Typhoon™ 9410 Imaging System.

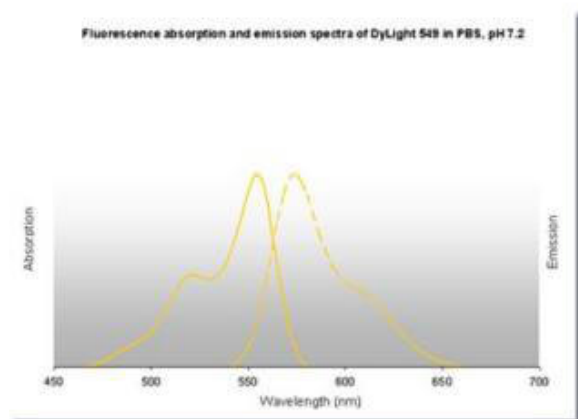


Diagram

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



References

- Ikegami K. et al. Circadian Regulation of IOP Rhythm by Dual Pathways of Glucocorticoids and the Sympathetic Nervous System. *Invest. Ophthalmol. Vis. Sci.* (2020)
- 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.