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Datasheet for 610-746-124

# Mouse IgG (H&L) Antibody DyLight™ 405 Conjugated Pre-Adsorbed

## Overview

| | |
|---|---|
| **Description:** | Donkey Anti-Mouse IgG (H&L) Antibody DyLight™ 405 Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Rb Rt & Sh Serum Proteins) - 610-746-124 |
| **Item No.:** | 610-746-124 |
| **Size:** | 100 µg |
| **Applications:** | IF |
| **Reactivity:** | Mouse |
| **Host Species:** | Donkey |

## Product Details

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|---|---|
| **Background:** | Anti-Mouse IgG DyLight405 Antibody generated in donkey 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 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:** | Donkey anti-Mouse IgG DyLight 405™ Conjugated Antibody, Donkey anti Mouse IgG Antibody DyLight 405™ Conjugation |
| **Host Species:** | Donkey |
| **Specificity:** | IgG (H&L) |
| **Conjugate:** | DyLight™ 405 |
| **Clonality:** | Polyclonal |
| **Format:** | IgG |
| **F/P Ratio:** | 2.0 |

## Target Details

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|---|---|
| **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 beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Donkey Serum, Mouse IgG and Mouse Serum. No reaction was observed against Bovine, Chicken, Goat, Guinea Pig, Hamster, Horse, Human, Rabbit, Rat and Sheep Serum Proteins. This antibody will react with heavy chains of mouse IgG and with light chains of most mouse immunoglobulins. |

## Application Details

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| **Suggested Applications:** | IF (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

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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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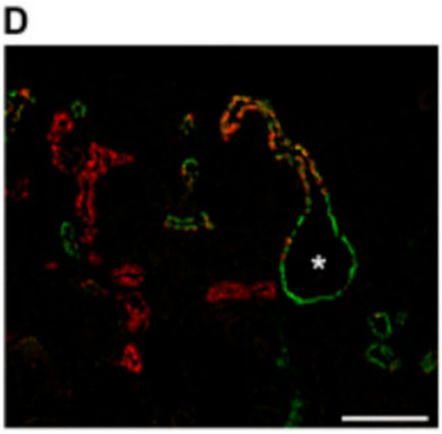
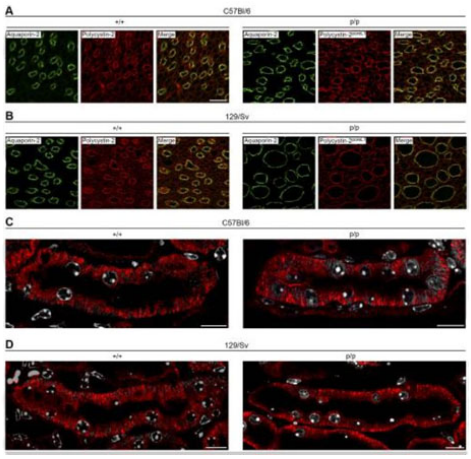
| **Shipping Condition:** | Ambient |
| **Storage Condition:** | Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product 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**
Double-immunofluorescence staining for aquaporin-2 (green) and calbindin (a marker of connecting tubules, red) demonstrates the sudden transition from a calbindin-positive connecting tubule to an aquaporin-2-positive collecting duct cyst (asterisk in D). Scale bars: 100 µm. Fig. 7. PMID: 34345895.

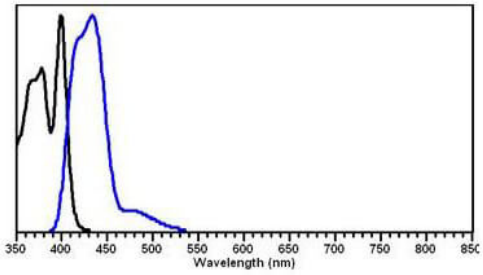



**Immunofluorescence Microscopy**
Intrarenal distribution of polycystin-2poreL1 in homozygous Pkd2poreL1 knock-in mice. (A,B) Immunofluorescence staining for aquaporin-2 as a marker for collecting ducts on the one hand and for polycystin-2 and polycystin-2poreL1 on the other hand in 6-month-old wild-type (+/+) and homozygous Pkd2poreL1 knock-in (p/p) female mice demonstrates the presence of wild-type polycystin-2 and of polycystin-2poreL1 in papillary collecting ducts in both the C57Bl/6 and 129/Sv genetic backgrounds. Note the larger diameter of collecting ducts in the Pkd2poreL1/poreL1 mice. Scale bar: 50 µm. (C,D) Immunofluorescence staining of kidney sections from 6-month-old wild-type (+/+) and homozygous Pkd2poreL1 knock-in (p/p) mice. Both in the C57Bl/6 and in the 129/Sv background, identical distributions of the wild-type and mutant polycystin-2 proteins (red signal) are seen. Nuclei are shown in white. Images are representative of three experiments. Scale bars: 10 µm. Fig. 5. PMID: 34345895.

| 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**
Properties of DyLight™ Fluorescent Dyes.

**Diagram**




## References


- Grosch M et al. A polycystin-2 protein with modified channel properties leads to an increased diameter of renal tubules and to renal cysts. *J Cell Sci.* (2021)


## 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.