

Datasheet for 605-456-013**Goat IgG (H&L) Antibody ATTO 647N Conjugated Pre-Adsorbed****Overview**

Description:	Rabbit Anti-Goat IgG (H&L) Antibody ATTO 647N Conjugated (Min X Hu, Ms, Rb Serum Proteins) - 605-456-013
Item No.:	605-456-013
Size:	500 µg
Applications:	Dot Blot, WB, IF, IHC
Reactivity:	Goat
Host Species:	Rabbit

Product Details

Background:	Anti-Goat IgG ATTO dye Antibody generated in rabbit 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:	rabbit anti-Goat IgG ATTO 647N Conjugated Antibody, rabbit anti-Goat IgG Antibody ATTO647N Conjugation
Host Species:	Rabbit
Specificity:	IgG (H&L)
Conjugate:	ATTO 647N
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	2.5

Target Details

Reactivity:	Goat
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Immunogen:	Goat IgG whole molecule
Purity/Specificity:	Goat IgG (H&L) Antibody ATTO 647N was prepared from monospecific antiserum by immunoaffinity chromatography using Goat 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-Rabbit Serum, Goat IgG and Goat Serum. No reaction was observed against Human, Mouse or Rabbit Serum Proteins. This antibody will react with heavy chains of Goat IgG and with light chains of most Goat immunoglobulins.

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF, IHC (Based on references)
Application Note:	Anti-Goat IgG (H&L) conjugated by ATTO 647N has been tested by dot blot and western blot and is designed for STED microscopy, FRET, 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 ATTO conjugate matches 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:	500 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

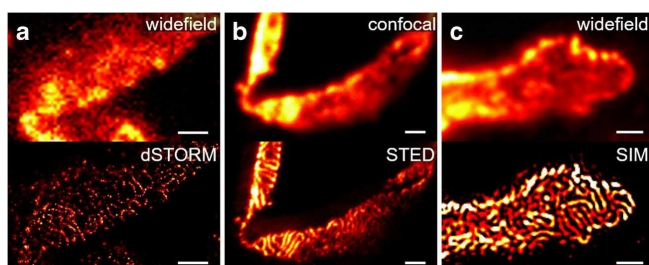
Shipping & Handling

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

Comparison of nephrin imaging with different conventional and super-resolution modalities. A) Widefield vs dSTORM using Atto647N. B) Confocal vs STED using Atto647N. C) Widefield vs SIM using Alexa Fluor 488. D) ExM prepared sample imaged with widefield vs e confocal using Alexa Fluor 488. The confocal ExM image furthermore shows the nucleus stained with Hoechst. Highlighted panels show × 3 zoomed areas. Scale bars in a–c are 1 μm, in d and e 10 μm and in the zoomed in areas 5 μm (after expansion) Figure provided by CiteAb. Source: Anal Bioanal Chem, PMID: 33277998.

Dot Blot

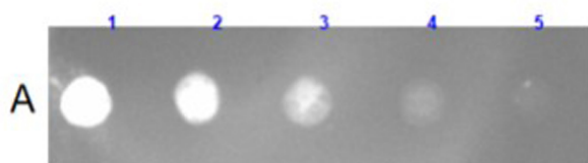
Dot Blot Results of Rabbit Anti-Goat IgG (H&L) Antibody (MX Hu, Ms, Rb) ATTO 647N Conjugated.

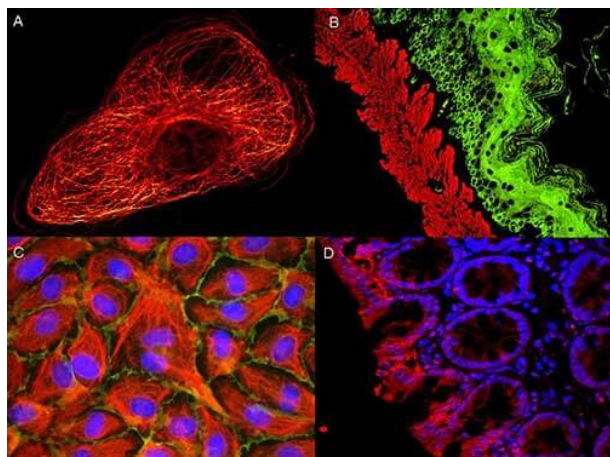
Sample: Goat IgG [p/n 005-0102].

Loaded: 1) 100ng, 2) 33.33ng, 3) 11.11ng, 4) 3.7ng, 5) 1.23ng.

Antibody: Anti-Goat IgG (H&L) [Rabbit] Antibody (MX3) ATTO 647N Conjugated at 1.0μg/mL for 1hr at RT.

Block: Blocking Buffer for Fluorescent Western Blotting [p/n MB-070] for 30 mins at RT.





Immunofluorescence Microscopy

ATTO[®] dyes can be used for multicolor immunofluorescent detection with low background and high signal. Examples shown are: A. Tubulin in PtK2- male Rat Kangaroo Kidney Epithelial Cells was detected using ATTO 532 labeled secondary antibody. B. Muscle alpha-actin was stained with a mouse primary antibody and ATTO 488 anti-mouse IgG (green) while Cytokeratin was stained with polyclonal rabbit anti-cytokeratin and ATTO 647N anti-rabbit IgG (red). C. HUVEC (Human umbilical vein endothelial cells) were stained with anti- Vimentin-ATTO 532 (green), anti-E-Cadherin-ATTO 655 (red) and DAPI (blue). D. Rat colon sections were stained with Anti-Aquaporin 3-ATTO 594 antibody. Hoechst 33342 (blue) is used as counterstain. Images provided courtesy of Dr. Jörg Reichwein, ATTO-TEC GmbH

References

- Matthaeus C et al. The molecular organization of differentially curved caveolae indicates bendable structural units at the plasma membrane. *Nat Commun.* (2022)
- Wunderlich LCS. et al. Superresolving the kidney-a practical comparison of fluorescence nanoscopy of the glomerular filtration barrier. *Anal Bioanal Chem.* (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.