

Datasheet for 612-156-120**Rat IgG (H&L) Antibody ATTO 647N Conjugated Pre-Adsorbed****Overview**

Description:	Goat Anti-Rat IgG (H&L) Antibody ATTO 647N Conjugated (Min X Bv Ch Gt GP Ham Hs Hu Ms Rb & Sh Serum Proteins) - 612-156-120
Item No.:	612-156-120
Size:	500 µg
Applications:	Dot Blot, WB, IF, IHC, Multiplex, Other
Reactivity:	Rat
Host Species:	Goat

Product Details

Background:	Anti-Rat IgG (H&L) conjugated to ATTO 647N 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.
Synonyms:	Goat anti-Rat IgG ATTO647N Conjugated Antibody, Goat anti-Rat IgG Antibody ATTO 647N Conjugation
Host Species:	Goat
Specificity:	IgG (H&L)
Conjugate:	ATTO 647N
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	1.9

Target Details

Reactivity:	Rat
Immunogen:	Rat IgG whole molecule

Purity/Specificity:	Rat IgG (H&L) Antibody ATTO 647N was prepared from monospecific antiserum by immunoaffinity chromatography using Rat 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, Rat IgG and Rat Serum. No reaction was observed against Bovine, Chicken, Goat, Guinea Pig, Hamster, Horse, Human, Mouse, Rabbit and Sheep Serum Proteins. This antibody will react with heavy chains of rat IgG and with light chains of most rat immunoglobulins.
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Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF, IHC, Multiplex, Other (Based on references)
Application Note:	Anti-Rat IgG (H&L) conjugated to 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. 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)

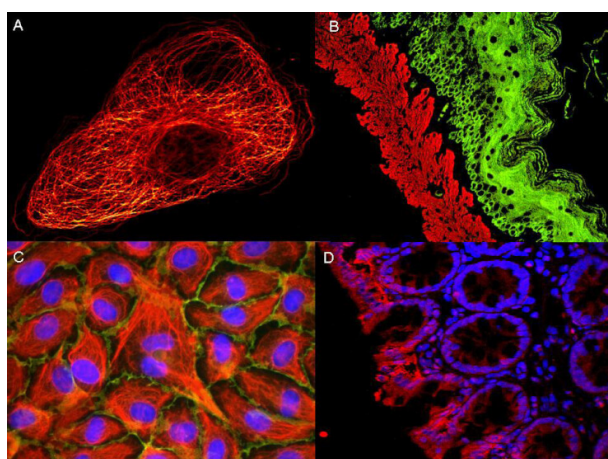
Shipping & Handling

Shipping Condition:	Ambient
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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.

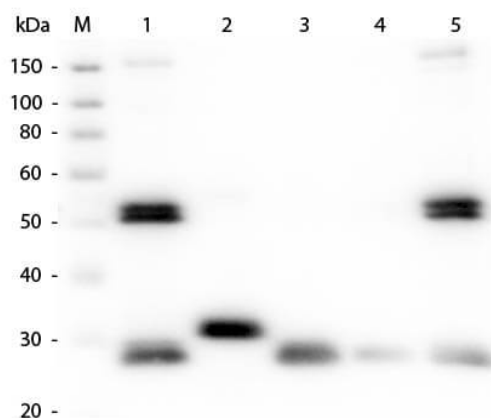
Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

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



Western Blot

Western Blot of Anti-Rat IgG (H&L) (GOAT) Antibody (Min X Bv Ch Gt GP Ham Hs Hu Ms Rb & Sh Serum Proteins) (p/n 612-101-120). Lane M: 3 µl Molecular Ladder. Lane 1: Rat IgG whole molecule (p/n 012-0102). Lane 2: Rat IgG F(c) Fragment (p/n 012-0103). Lane 3: Rat IgG Fab Fragment (p/n 012-0105). Lane 4: Rat IgM Whole Molecule (p/n 012-0107). Lane 5: Rat Serum (p/n D310-05). All samples were reduced. Load: 50 ng per lane. Block: MB-070 for 30 min at RT. Primary Antibody: Anti-Rat IgG (H&L) (GOAT) Antibody (Min X Bv Ch Gt GP Ham Hs Hu Ms Rb & Sh Serum Proteins) (p/n 612-101-120) 1:1,000 for 60 min at RT. Secondary Antibody: Anti-Goat IgG (DONKEY) Peroxidase Conjugated Antibody (p/n CUST10) 1:40,000 in MB-070 for 30 min at RT. Predicted/Observed Size: 25 and 55 kDa for Rat IgG and Serum, 25 kDa for F(c) and Fab, 78 and 25 kDa for IgM. Rat F (c) migrates slightly higher.

References

- Westeinde EA et al. Transforming a head direction signal into a goal-oriented steering command. *Nature*. (2024)
- Mellouk N et al. Post-translational targeting of Rab35 by the effector IcsB of Shigella determines intracellular bacterial niche formation. *Cell Rep*. (2024)
- Lillvis JL et al. Nested neural circuits generate distinct acoustic signals during Drosophila courtship. *Curr Biol*. (2024)
- Meissner GW et al. A searchable image resource of Drosophila GAL4 driver expression patterns with single neuron resolution. *Elife*. (2023)
- Vijayan V et al. A rise-to-threshold process for a relative-value decision. *Nature*. (2023)
- Baker CA et al. Neural network organization for courtship-song feature detection in Drosophila. *Curr Biol*. (2022)
- Sun L et al. Recurrent circadian circuitry regulates central brain activity to maintain sleep. *Neuron*. (2022)
- Okubo TS et al. A neural network for wind-guided compass navigation. *Neuron*. (2020)
- Feng K et al. Distributed control of motor circuits for backward walking in Drosophila. *Nat Commun*. (2020)
- Dolan MJ et al. Neurogenetic dissection of the Drosophila lateral horn reveals major outputs, diverse behavioural functions, and interactions with the mushroom body. *Elife*. (2019)
- Wolff et al. Neuroarchitecture of the Drosophila central complex: A catalog of nodulus and asymmetrical body neurons and a revision of the protocerebral bridge catalog. *The Journal of Comparative Neurology* (2018)
- Meissner et al. Optimization of fluorophores for chemical tagging and immunohistochemistry of Drosophila neurons. *PLOS One* (2018)
- Turner-Evans et al. Angular velocity integration in a fly heading circuit. *Elife* (2017)
- von Reyn et al. Feature Integration Drives Probabilistic Behavior in the Drosophila Escape Response. *Neuron* (2017)

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