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Datasheet for 610-151-040

Mouse IgG1 (Gamma 1 chain) ATTO 425 Conjugated Antibody pre-absorbed

Overview

Description:	Goat Anti-Mouse IgG1 (Gamma 1 chain) Antibody ATTO 425 Conjugated (Min X Bv, Hu, and Rb Serum Proteins) - 610-151-040
Item No.:	610-151-040
Size:	500 µg
Applications:	Dot Blot, WB, IF
Reactivity:	Mouse
Host Species:	Goat

Product Details

Background:	Anti-Mouse IgG1 ATTO 425 Antibody generated in goat detects reactivity to Mouse IgG1 (Gamma 1 chain). Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. IgG1 chain constitutes 66% of the IgG subclass and has a high affinity for binding to the Fc receptor of phagocytic cells. 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-mouse IgG1 antibody ATTO425 conjugation, goat anti-mouse IgG1 (gamma 1) ATTO 425 conjugated antibody
Host Species:	Goat
Specificity:	IgG1
Conjugate:	ATTO 425
Clonality:	Polyclonal
Format:	IgG
F/P Ratio:	2.3

Target Details

Reactivity:	Mouse
Immunogen Type:	Native Protein
Immunogen:	Mouse IgG1 heavy chain
Purity/Specificity:	Anti-Mouse IgG1 antibody was prepared from monospecific antiserum by immunoaffinity chromatography using Mouse IgG1 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, Mouse Serum, Mouse IgG and Mouse IgG1. No reaction was observed against Bovine, Human, and Rabbit Serum Proteins. Specificity was confirmed by ELISA at less than 1% of target signal.

Application Details

Tested Applications:	Dot Blot, WB
Suggested Applications:	IF (Based on references)
Application Note:	Anti-Mouse IgG1 ATTO 425 Antibody has been tested by dot blot and western blot. ATTO Dye Conjugated Secondary Antibodies are 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

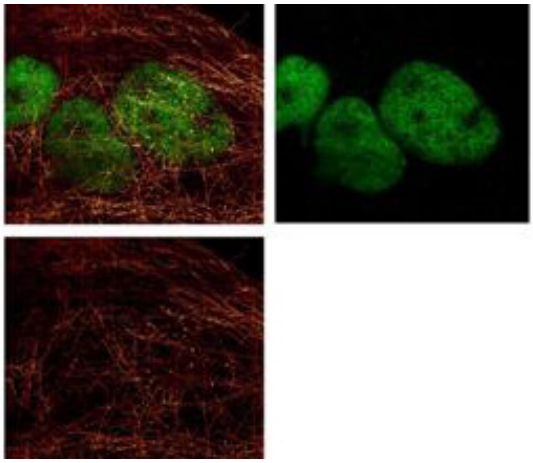
Formulation

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)

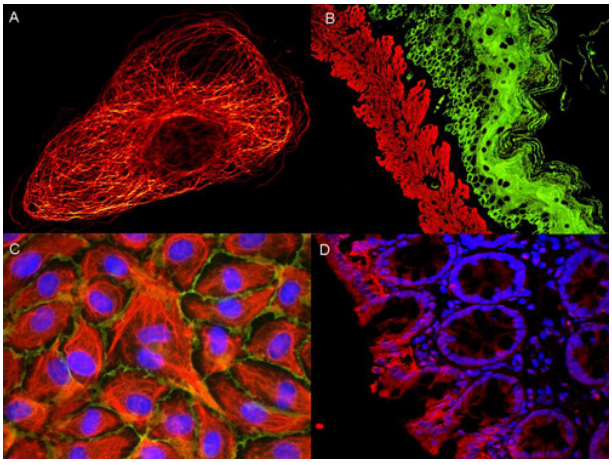
Shipping & Handling

Shipping Condition:	Ambient
Storage Condition:	Store vial at 4° C prior to restoration. For extended storage aliquot secondary antibody 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 425 conjugated anti-Mouse IgG was used to demonstrate 2 color STED immunofluorescence microscopy. Methanol fixed A431 cells were blocked with normal goat serum. The cells were then probed with 0.4 µg/mL final concentration of anti-a-tubulin and detected with 0.2 µg/mL ATTO 425 conjugated anti-MOUSE IgG [GOAT] (610-151-121) secondary antibody (colored RED). Also shown in this 2-color STED image is Rockland's Anti-HDAC-1 [RABBIT] (p/n 600-401-879) detected with DyLight™488 conjugated Anti-RABBIT IgG [GOAT] secondary antibody (colored GREEN). Image courtesy of Myriam Gastard, Leica Microsystems, USA.



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

- Hruska M et al. Nanoscale rules governing the organization of glutamate receptors in spine synapses are subunit specific. *Nat Commun.* (2022)

Disclaimer

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