Goat anti-Mouse IgG1 Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 488

Product Details	
Size	500 µg
Species Reactivity	Mouse
Host/Isotype	Goat / IgG
Class	Polyclonal
Type	Secondary Antibody
Conjugate	Alexa Fluor™ 488
Excitation/Emission Max	499/520 nm
Immunogen	IgG gamma 1
Form	Liquid
Concentration	2 mg/mL
Purification	purified
Storage buffer	PBS, pH 7.5
Contains	5mM sodium azide
Storage conditions	4° C, store in dark
RRID	AB_2535764

Applications	Tested Dilution	Publications
Western Blot (WB)	-	0 Publication
Immunohistochemistry (IHC)	-	0 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	0 Publication
Immunohistochemistry (Frozen) (IHC (F))	1:2,000	0 Publication
Immunocytochemistry (ICC/IF)	1 µg/mL	0 Publication
Flow Cytometry (Flow)	1-10 µg/mL	0 Publication
Immunoprecipitation (IP)	-	0 Publication
Miscellaneous PubMed (Misc)	-	0 Publication

Product Specific Information

To minimize cross-reactivity, these goat anti-mouse IgG1 whole antibodies have been cross-adsorbed against mouse IgM, mouse IgA, pooled human sera, purified human paraproteins, and mouse isotypes IgG2a, IgG2b, and IgG3 prior to conjugation. Cross-adsorption or pre-adsorption is a purification step to increase specificity of the antibody resulting in higher sensitivity and less background staining. The secondary antibody solution is passed through a column matrix containing immobilized serum proteins from potentially cross-reactive species. Only the nonspecific-binding secondary antibodies are captured in the column, and the highly specific secondaries flow through. The benefits of this extra step are apparent in multiplexing/multicolor-staining experiments (e.g., flow cytometry) where there is potential cross-reactivity with other primary antibodies or in tissue/cell fluorescent staining experiments where there are may be the presence of endogenous immunoglobulins.

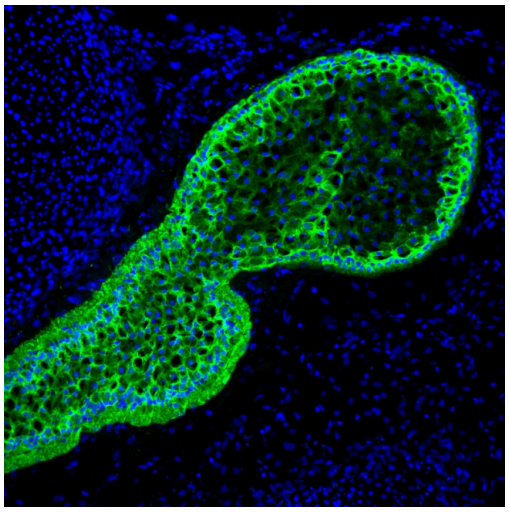
Alexa Fluor dyes are among the most trusted fluorescent dyes available today. Invitrogen™ Alexa Fluor 488 dye is a bright, green-fluorescent dye with excitation ideally suited to the 488 nm laser line. For stable signal generation in imaging and flow

cytometry, Alexa Fluor 488 dye is pH-insensitive over a wide molar range. Probes with high fluorescence quantum yield and high photostability allow detection of low-abundance biological structures with great sensitivity. Alexa Fluor 488 dye molecules can be attached to proteins at high molar ratios without significant self-quenching, enabling brighter conjugates and more sensitive detection. The degree of labeling for each conjugate is typically 2-8 fluorophore molecules per IgG molecule; the exact degree of labeling is indicated on the certificate of analysis for each product lot.

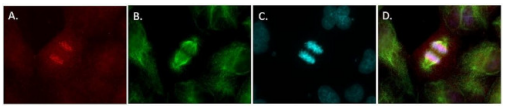
Using conjugate solutions: Centrifuge the protein conjugate solution briefly in a microcentrifuge before use; add only the supernatant to the experiment. This step will help eliminate any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining. Because staining protocols vary with application, the appropriate dilution of antibody should be determined empirically. For the fluorophore-labeled antibodies a final concentration of 1-10 µg/mL should be satisfactory for most immunohistochemistry and flow cytometry applications.

Product will be shipped at Room Temperature.

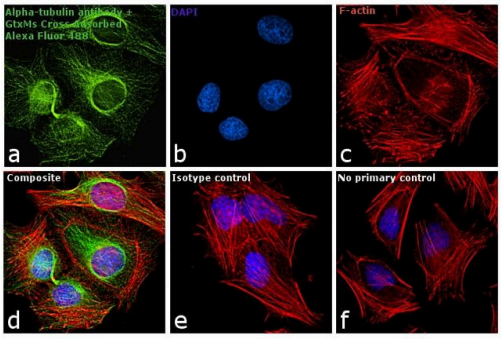
Product Images For Goat anti-Mouse IgG1 Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 488



Mouse IgG1 Cross-Adsorbed Secondary Antibody (A-21121) in IHC (F)
Immunohistochemistry analysis of Cytokeratin 5 was performed on cryosections of human skin tissue. Tissues were blocked in 10% normal goat serum in 1X PBS containing 0.1% Triton X-100 (1X PBS-T) for 1 hour at room temperature (RT). The tissues were labeled with a Cytokeratin 5 monoclonal antibody (clone XM26, green, Product # MA5-12596) diluted 1:50 in 3% normal goat serum in 1X PBS-T for 1 hour at RT, followed by detection with a Goat anti-Mouse IgG1, Alexa Fluor 488 secondary antibody (Product # A-21121) diluted 1:2000 in 3% normal goat serum in 1X PBS-T for 1 hour at RT. Nuclei (blue) were stained with DAPI, included in ProLong Gold Anti-Fade Mountant (Product # P36931). Images were taken on an inverted microscope at 20X magnification. Data courtesy of Dr. Jiyoon Lee at Indiana University School of Medicine.



Mouse IgG1 Cross-Adsorbed Secondary Antibody (A-21121) in ICC/IF
Immunofluorescent analysis of alpha tubulin (green) in a BHP 2-7 thyroid cancer anaphase cell cultured in complete medium on a glass slide. Cells were fixed with 4% phosphate-buffered paraformaldehyde for 30 min at 37C, permeabilized with 100% ice-cold methanol for 20 min. and blocked with PBS/1% BSA/0.5% Tween 20 at 37C for 30 min. Cells were stained with monoclonal alpha tubulin antibody (Product # 14-4502-82) at a dilution of 1:200 in PBS/1% BSA/0.1% Tween 20 for 60 min at 37C., and then incubated with goat anti-mouse IgG1 AF488 (Product # A-21121) at a dilution of 1:200 for 60 min. at 37C (panel b: green). HEC1 (panel a: red) was stained simultaneously with monoclonal HEC1 mouse IgG1 antibody (Product # 14-4502-82) followed by goat anti-mouseIgG2a AF594 (1:200, Cat # A-21135). DNA was stained with Hoechst33342 (panel c: blue). Panels d shows a merged image. Images were taken with a 40x immersion oil objective (for more information: Corver et al., Endocr Relat Cancer. 2018 Jan; 25(1):83-97). Data courtesy of Antibody Data Exchange Program.



Mouse IgG1 Cross-Adsorbed Secondary Antibody (A-21121) in ICC/IF
Immunofluorescence analysis of Goat anti-Mouse IgG1 Cross-Adsorbed Secondary Antibody Alexa Fluor® 488 conjugate was performed using HeLa cells stained with alpha Tubulin (236-10501) Mouse Monoclonal Antibody (Product # A11126). The cells were fixed with 4% paraformaldehyde for 10 minutes, permeabilized with 0.1% Triton™ X-100 for 10 minutes, blocked with 1% BSA for 1 hour and labeled with 2 µg/mL Mouse primary antibody for 3 hours at room temperature. Goat anti-Mouse IgG1 Cross-Adsorbed Secondary Antibody Alexa Fluor® 488 conjugate (Product # A-21121) was used at a concentration of 1 µg/mL in phosphate buffered saline containing 0.2% BSA for 45 minutes at room temperature, for detection of alpha Tubulin in the cytoplasm (Panel a: green). Nuclei (Panel b: blue) were stained with DAPI in SlowFade® Gold Antifade Mountant (Product # S36938). F-actin was stained with Rhodamine Phalloidin (Product # R415, 1:300) (Panel c: red). Panel d represents the composite image. No nonspecific staining was observed with the secondary antibody alone (panel f), or with an isotype control (panel e). The images were captured at 60X magnification.

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1229 References

MUC2 expression modulates immune infiltration in colorectal cancer. Front Immunol (2025)

Ablation of satellite cell-specific clock gene, Bmal1, alters force production, muscle damage, and repair following contractile-induced injury. FASEB J (2025)

Meprin activity modulates cellular proliferation via trans-signaling IL-6-mediated AKT/ERK pathway in IR-induced kidney injury Research Square (2025)

Temporal and spatial pattern of DNA damage in neurons following spinal cord Injury in mice. J Biomed Sci (2025)

Protective mechanisms against Alzheimer’s Disease in APOE3-Christchurch homozygous astrocytes bioRxiv (2025)