Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546

Product Details	
Size	1 mg
Species Reactivity	Rat
Host/Isotype	Goat / IgG
Class	Polyclonal
Type	Secondary Antibody
Conjugate	Alexa Fluor™ 546
Excitation/Emission Max	561/572 nm
Immunogen	Gamma Immunoglobins Heavy and Light chains
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_2534125

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

Product Specific Information

To minimize cross-reactivity, these goat anti-rat IgG (H+L) whole secondary antibodies have been affinity purified and cross-adsorbed against mouse IgG, mouse serum, and human serum 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.

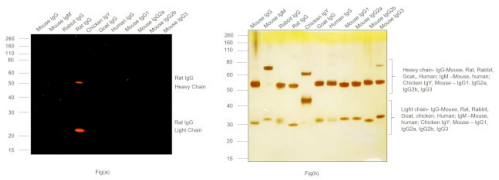
Alexa Fluor dyes are among the most trusted fluorescent dyes available today. Invitrogen™ Alexa Fluor 546 dye is a bright, orange-fluorescent dye with excitation ideally suited to the 546 nm laser line. For stable signal generation in imaging and flow cytometry, Alexa Fluor 546 dye is pH-insensitive 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 546 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.

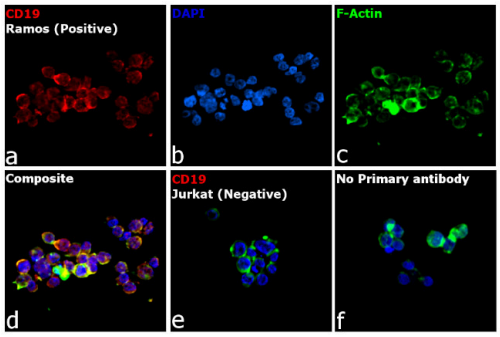
Using conjugate solutions: Centrifuge the protein conjugate solution briefly in a microcentrifuge before use; add only the supernatant to the experiment. This step will help eliminate any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining. Because 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.

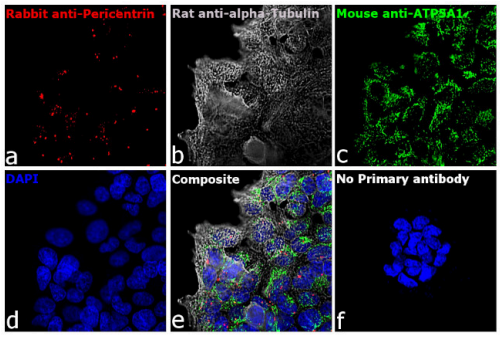
Product Images For Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11081)
Specificity of secondary antibody was demonstrated by specific detection of the target immunoglobulin. Antibody specificity was demonstrated by specific detection of Rat IgG. Bands at ~50 and 25 kDa corresponding to Rat IgG Heavy and Light Chain was observed in Rat IgG but not in other species using Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546 (Product # A-11081) in Western Blot.Relative expression. {RE}



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11081) in ICC/IF
Immunofluorescence analysis of Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546 (Product # A-11081) was performed using Ramos (positive model) and Jurkat (negative model) cells stained with CD19 Monoclonal Antibody (Product # 14-0194-80). 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 primary antibody for 3 hours at room temperature. Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546 (Product # A-11081, 1:2000) in 0.1% BSA in PBS for 45 minutes at room temperature, was used for detection of CD19 in the cell membrane (Panel a: red). Nuclei (Panel b: blue) were stained with Hoechst33342 (Product # H1399). F-actin was stained with Alexa Fluor® 488 Phalloidin (Product # A12379, 1:300) (Panel c: green). Panel d represents the composite image. The specificity of the secondary antibody was proved by the absence of signal in Jurkat (negative model for CD19) due to no primary antibody binding (Panel e). Nonspecific staining was not observed with secondary antibody alone (panel f). The images were captured at 60X magnification.



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11081) in ICC/IF
Immunofluorescence analysis of A32731, A-11081 and A32728 was performed using primary antibodies against Pericentrin (Product # PA5-53498), alpha Tubulin (Product # MA1-80017) and ATP5A1 (Product # 43-9800) in 70% confluent log phase HEK 293 cells. The cells were fixed with 4% Paraformaldehyde, permeabilized with 0.1% Triton X-100 and blocked with 2% BSA, then incubated with the primary antibodies at 1:100 dilution each at 4 degree celsius overnight. The cells were then incubated with Goat anti-Rabbit IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 488 (Product # A32731), Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 546 (Product # A-11081) and Goat anti-Mouse IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ Plus 647 (Product # A32728) at 1:2000 dilution each in 0.1% BSA at room temperature for 45 minutes. The images were captured at 40X magnification in CellInsight CX7 LZR High-Content Screening (HCS) Platform (Product # CX7A1110LZR) and externally deconvoluted (D.Sage et al./Methods 115 (2017) 28–41). The specific centrosomal, cytoskeletal and mitochondrial localization of Pericentrin (Panel a), Tubulin (Panel b) and ATP5A1 (Panel c) in the respective channels alone shows the specificity of all the 3 secondary antibodies used. Nuclei (Panel d) were stained with Hoechst33342 (Product # H1399). Panel e is the composite of Panels a-d, showing co-localisation. Panel f is control cells with

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484 References

Silencing hepatic PCSK9 via novel chimeric AAV8 mitigates the progression of atherosclerosis by inhibiting inflammation in ApoE-/- mice. Mol Ther Methods Clin Dev (2025)

Negative regulation of lymphangiogenesis by Tenascin-C delays the resolution of inflammation. iScience (2025)

Spinal cord injury enhances lung inflammation and exacerbates immune response following exposure to LPS. Front Immunol (2025)

Synthetic GPR84 Agonists in Colorectal Cancer: Effective in THP-1 Cells but Ineffective in BMDMs and MC38 Mouse Tumor Models. Int J Mol Sci (2025)

A multi-model approach identifies ALW-II-41-27 as a promising therapy for osteoarthritis-associated inflammation and endochondral ossification. Heliyon (2024)