Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 594

Product Details	
Size	1 mg
Species Reactivity	Rat
Host/Isotype	Goat / IgG
Class	Polyclonal
Type	Secondary Antibody
Conjugate	Alexa Fluor™ 594
Excitation/Emission Max	590/618 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_10561522

Applications	Tested Dilution	Publications
Western Blot (WB)	-	0 Publication
Immunohistochemistry (IHC)	-	0 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	0 Publication
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	0 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	0 Publication
Immunocytochemistry (ICC/IF)	4 µg/mL	0 Publication
Flow Cytometry (Flow)	1:500	-
Immunoprecipitation (IP)	-	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.

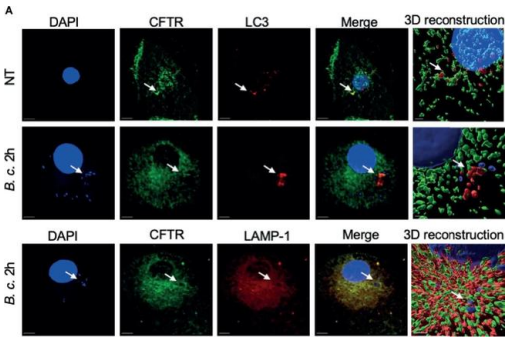
Alexa Fluor dyes are among the most trusted fluorescent dyes available today. Invitrogen™ Alexa Fluor 594 dye is a bright, red-fluorescent dye with excitation ideally suited to the 594 nm laser line. For stable signal generation in imaging and flow

cytometry, Alexa Fluor 594 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 594 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.

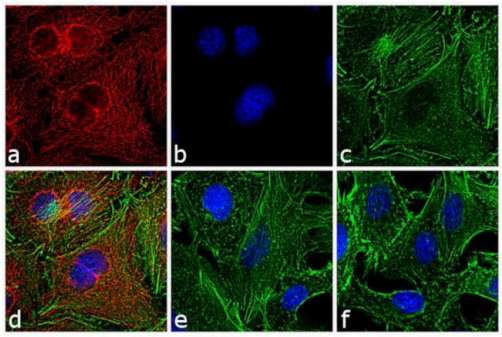
Using conjugate solutions: Centrifuge the protein conjugate solution briefly in a microcentrifuge before use; add only the supernatant to the experiment. This step will help eliminate any protein aggregates that may have formed during storage, thereby reducing nonspecific background staining. Because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

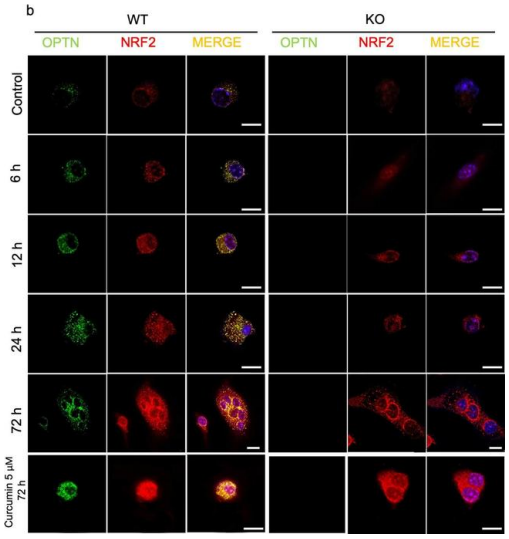
Product Images For Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 594



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11007) in ICC/IF
CFTR localizes to LC3-labeled autophagosomes and Burkholderia cenocepacia-containing autophagosomes and autophago-lysosomes. (A) Representative projection and 3D reconstruction from z-stack confocal microscopy images of human non-cystic fibrosis (non-CF) macrophages, either non-infected (NT) or infected with B. cenocepacia (MH1K) for 2 h (B. c. 2 h). Macrophages were fixed and stained for CFTR (Alexa Fluor-488), LC3, and LAMP-1 (Alexa Fluor-594); DAPI was used to stain B. c. DNA. White arrows point to CFTR colocalized with LC3, B. c., or LAMP-1 (n = 3 biological replicates). Scale bar = 5 µm. (B) Representative confocal microscopy images of human non-CF, CF NT, and CF treated with Teza+Iva for 24 h macrophages. Macrophages were infected with B. cenocepacia expressing RFP for 2 h (red B. c. 2h) and stained for CFTR. White arrows point to CFTR colocalized with red B. c.(C) % volume of red B. c. colocalized with CFTR measured from images in panel (B) Data represent mean ± SEM calculated from 3D reconstructed images using Imaris software from at least 5 randomly chosen fields of view with an average of 30 cells per field (n = 4 non-CF, n = 5 CF NT, and n = 4 CF Teza+Iva). Statistical analysis was performed using a linear mixed-effects model (REML); *, p 0.05. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/35252032), licensed under a CC BY license.



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11007) in ICC/IF
Immunofluorescence analysis of Goat anti-Rat IgG (H+L) Secondary Antibody, Alexa Fluor 594 conjugate was performed using A549 cells stained with alpha Tubulin (YL1/2) Rat Monoclonal Antibody (Product # MA1-80017). 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 2µg/mL Rat primary antibody for 3 hours at room temperature. Goat anti-Rat IgG (H+L) Secondary Antibody, Alexa Fluor 594 conjugate (Product # A-11007) was used at a concentration of 4µg/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: red). Nuclei (Panel b: blue) were stained with DAPI in SlowFade® Gold Antifade Mountant (Product # S36938). F-actin was stained with Alexa Fluor® 488 Phalloidin (Product # A12379), 1:300) (Panel c: green). 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.



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11007) in ICC/IF
Direct interaction between the NRF2 and OPTN proteins.a Immunoblot analysis of whole-cell lysates and CoIP assays using HEK293T cells. Flag immunoprecipitates were isolated from HEK293T cells transfected with His-OPTN or Flag-Nrf2 plasmids for 1 d. The IP bands showed that Flag-tagged NRF2 can pull down His-tagged OPTN, indicating that NRF2 and OPTN can bind with each other in vitro. -Actin expression served as a loading control. b Intracellular localization of OPTN and NRF2 in preosteoclasts. The Optn/ and Optn+/+ preosteoclasts were treated with M-CSF (10 ng/mL) and RANKL (30 ng /mL) for 6, 12, 24, and 72 h. RANKL + 5 µM curcumin treatment for 72 h was used as a positive control. After fixation, the cells were processed with immunofluorescence using antibodies against OPTN (green), NRF2 (red) and nuclei (blue). In merged images, colocalization of OPTN and NRF2 was observed mostly in perinuclear granular structures (yellow). Scale bar = 10 µm. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33864025), licensed under a CC BY license.

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780 References

The RNA-binding protein Cpeb4 regulates splicing of the Id2 gene in osteoclast differentiation. J Cell Physiol (2024)

Interplay between the plasma membrane and cell-cell adhesion maintains epithelial identity for correct polarised cell divisions. J Cell Sci (2024)

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