Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 568

Product Details	
Size	1 mg
Species	Rat
Published Species	Rat
Expression System	Goat / IgG
Class	Polyclonal
Type	Secondary Antibody
Conjugate	Alexa Fluor® 568
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_2534121

Applications	Tested Dilution	Publications
Immunocytochemistry (ICC)	1-10 µg/mL	15 Publications
Immunofluorescence (IF)	1-10 µg/mL	1 Publication
Immunohistochemistry (Frozen) (IHC (F))	1:1000	2 Publications
Immunohistochemistry (IHC)	-	19 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunohistochemistry - Free Floating (IHC (Free))	-	1 Publication
Miscellaneous PubMed (Misc)	-	46 Publications

Product Specific Information

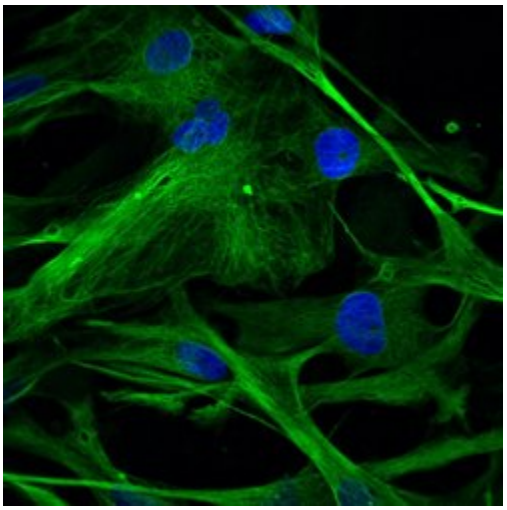
To minimize cross-reactivity, these goat anti-rat IgG (H+L) whole secondary antibodies have been affinity purified and cross-adsorbed against mouse IgG, mouse serum, and human serum prior to conjugation. Cross-adsorption or pre-adsorption is a purification step to increase specificity of the antibody 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 568 dye is a bright, orange

/red-fluorescent dye with excitation ideally suited to the 568 nm laser line. For stable signal generation in imaging and flow cytometry, Alexa Fluor 568 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 568 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 Images For Goat anti-Rat IgG (H+L) Cross-Adsorbed Secondary Antibody, Alexa Fluor 568



Rat IgG (H+L) Cross-Adsorbed Secondary Antibody (A-11077) in IHC (F)
Immunofluorescent analysis of beta-3 Tubulin (green) and GFAP (red) in human iPSC-derived forebrain organoids derived at Day 84. The organoids were fixed with 4% PFA for 1 hour at room temperature, followed by incubation with 30% sucrose solution overnight at 4°C. The organoids were then embedded in OCT and cryosectioned at 5 µm, permeabilized with 0.2% Triton X-100 for 20 min, and blocked with 10% donkey serum in PBS for 30 min at room temperature. Organoid slices were stained with a Mouse beta-3 Tubulin monoclonal antibody (green; Product # MA1-118) at a dilution of 1:500, and a Rat GFAP monoclonal antibody (red; Product # 13-0300) at a dilution of 1:500 in blocking buffer overnight at 4°C, and then incubated with Donkey anti-Mouse Alexa Fluor 488 (Product # R37114) and Donkey anti-Rat Alexa Fluor 568 (Product # A11077) at a dilution of 1:1000 as well as DAPI (blue; 1:25000) in blocking solution at room temperature for 1 hour. Images were takenat 20X magnification. Data courtesy of Dr. Zhexing Wen at Emory University.

85 References

Immunohistochemistry (19)

Frontiers in neurology

The Importance of Inter-Species Variation in Traumatic Brain Injury-Induced Alterations of Microglial-Axonal Interactions.

"A-11077 was used in Immunohistochemistry to show that the species utilized for in vivo pre-clinical studies influences the manner in which microglial-axonal interactions change following TBI."

Authors: Gorse KM,Lafrenaye AD

Species
Rat
Not Applicable

Dilution
1:700
1:700

Year
2020

Stem cells (Dayton, Ohio)

Protein Methyltransferase Inhibition Decreases Endocrine Specification Through the Upregulation of Aldh1b1 Expression.

"A-11077 was used in Immunohistochemistry-immunofluorescence to identify small molecule inducers of Aldh1b1 expression taking advantage of a mouse embryonic stem (mES) cell Aldh1b1 lacZ reporter line and a pancreas differentiation protocol directing mES cells into pancreatic progenitors."

Authors: Giannios I,Serafimidis I,Anastasiou V,Pezzolla D,Lesche M,Andree C,Bickle M,Gavalas A

Species
Rat
Not Applicable

Dilution
1:500
1:500

Year
2019

View more IHC references on thermofisher.com

Miscellaneous PubMed (46)

Frontiers in neurology

The Importance of Inter-Species Variation in Traumatic Brain Injury-Induced Alterations of Microglial-Axonal Interactions.

"A-11077 was used in Immunohistochemistry to show that the species utilized for in vivo pre-clinical studies influences the manner in which microglial-axonal interactions change following TBI."

Authors: Gorse KM,Lafrenaye AD

Species
Rat
Not Applicable

Dilution
1:700
1:700

Year
2020

Life science alliance

MMP9 modulates the metastatic cascade and immune landscape for breast cancer anti-metastatic therapy.

"A-11077 was used in Immunohistochemistry to show the metastatic cascade in breast cancer is modulated by matrix metalloproteinase 9."

Authors: Owyong M,Chou J,van den Bijgaart RJ,Kong N,Efe G,Maynard C,Talmi-Frank D,Solomonov I,Koopman C, Hadler-Olsen E,Headley M,Lin C,Wang CY,Sagi I,Werb Z,Plaks V

Species
Not Applicable

Dilution
1:600

Year
2019

View more Misc references on thermofisher.com

More applications with references on thermofisher.com

ICC (15) IHC (F) (2) IHC (Free) (1) IHC (P) (1) IF (1)