

Donkey anti-Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 488

Product Details

Size: 100µl

Species Reactivity: Rat

Host/Isotype: Donkey / IgG

Class: Polyclonal

Type: Secondary Antibody

Conjugate: Alexa Fluor™ 488

Excitation/Emission Max: 499/520 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: BA2005

Applications

Immunohistochemistry (IHC): 1-10 µg/mL

Immunocytochemistry (ICC/IF): 1 µg/mL

Product Specific Information

These donkey anti-rat IgG (H+L) whole secondary antibodies have been affinity-purified and show minimum cross-reactivity to bovine, chicken, goat, guinea pig, hamster, horse, human, mouse, rabbit, and sheep serum proteins. 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 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

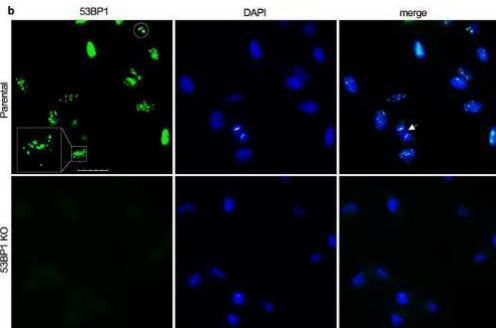
湖北百奥斯 (Biossci) 生物科技有限公司
武汉长衍病理科技有限公司

thesupernatant 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.

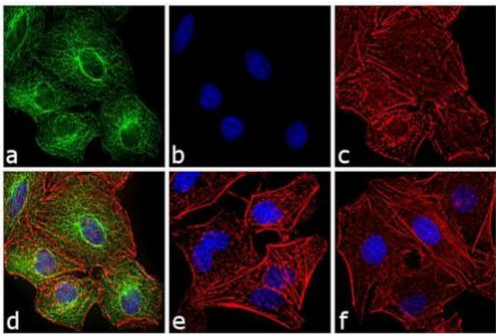
Product will be shipped at Room Temperature.

**Product Images For Donkey anti-Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody,
Alexa Fluor™ 488**

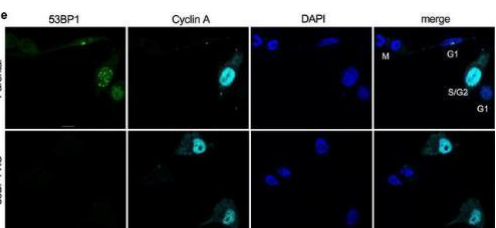
湖北百奥斯 (Biossci) 生物科技有限公司
武汉长衍病理科技有限公司



Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21208) in ICC/IF 53BP1 forms nuclear puncta. a MDA-MB-231 parental and 53BP1 knockout (KO) cells were treated or not with 500 nM CPT for 6 h, and protein expression was detected. Arrowhead indicates 53BP1. b Representative images of nuclear localization of 53BP1 in MDA-MB-231 cells under normal growth conditions. Single z-plane images were acquired by sequential scanning using confocal microscopy. Square: an example of puncta+ cell; Circle: a cell with three spontaneous 53BP1 foci; Arrow: a mitotic cell. Scale bar is 16 μm . c Percentage of puncta positive cells were analyzed from $n = 36$ individual images taken from four replicate experiments with a total $n = 447$ and 373 cells analyzed for parental and KO groups, respectively. Data represent mean values and standard deviation (SD). d Violin plot of 53BP1 puncta number per cell was analyzed from $n = 185$ and 105 parental and 53BP1 KO MDA-MB-231 cells, respectively. Data represent mean, 25th, and 75th percentiles with the whiskers extending to the minimum and maximum values. e Representative images of 53BP1 puncta and Cyclin A in MDA-MB-231 parental and 53BP1 KO cells under normal growth conditions. The cell cycle stages (G1, S/G2, and M) were determined by a combination of Cyclin A expression levels and DAPI staining patterns. Single z-plane images were acquired by sequential scanning using confocal microscopy. Scale bar is 10 μm . f Correlation between Cyclin A expression levels (expressed as mean fluorescence inten... Image collected and cropped by CiteAb from the following publication (), licensed under a CC BY license.



Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21208) in ICC/IF Immunofluorescence analysis of Donkey anti-Rat IgG (H+L) Secondary Antibody, Alexa Fluor 488 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 2 $\mu\text{g}/\text{mL}$ Rat primary antibody for 3 hours at room temperature. Donkey anti-Rat IgG (H+L) Secondary Antibody, Alexa Fluor 488 conjugate (Product # A-21208) was used at a concentration of 1 $\mu\text{g}/\text{mL}$ 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.



Rat IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21208) in ICC/IF 53BP1 forms nuclear puncta. a MDA-MB-231 parental and 53BP1 knockout (KO) cells were treated or not with 500 nM CPT for 6 h, and protein expression was detected. Arrowhead indicates 53BP1. b Representative images of nuclear localization of 53BP1 in MDA-MB-231 cells under normal growth conditions. Single z-plane images were acquired by sequential scanning using confocal microscopy. Square: an example of puncta+ cell; Circle: a cell with three spontaneous 53BP1 foci; Arrow: a mitotic cell. Scale bar is 16 μm . c Percentage of puncta positive cells were analyzed from $n = 36$ individual images taken from four replicate experiments with a total $n = 447$ and 373 cells analyzed for parental and KO groups, respectively. Data represent mean values and standard deviation (SD). d Violin plot of 53BP1 puncta number per cell was analyzed from $n = 185$ and 105 parental and 53BP1 KO MDA-MB-231 cells, respectively. Data represent mean, 25th, and 75th percentiles with the whiskers extending to the minimum and maximum values. e Representative images of 53BP1 puncta and Cyclin A in MDA-MB-231 parental and 53BP1 KO cells under normal growth conditions. The cell cycle stages (G1, S/G2, and M) were determined by a combination of Cyclin A expression levels and DAPI staining patterns. Single z-plane images were acquired by sequential scanning using confocal microscopy. Scale bar is 10 μm . f Correlation between Cyclin A expression levels (expressed as mean fluorescence inten... Image collected and cropped by CiteAb from the following publication (), licensed under a CC BY license.

湖北百奥斯 (Biossci) 生物科技有限公司
武汉长衍病理科技有限公司

View more figures on thermofisher.cn

1192 References

Curaxin CBL0137 inhibits endothelial inflammation and atherogenesis via suppression of the Src-YAP signalling axis. *Br J Pharmacol* (2023)

Variations in the poly-histidine repeat motif of HOXA1 contribute to bicuspid aortic valve in mouse and zebrafish. *Nat Commun* (2023)

Inhibition of VEGF receptors induces pituitary apoplexy: An experimental study in mice. *PLoS One* (2023)

Type 1 vomeronasal receptor expression in juvenile and adult lungfish olfactory organ. *Zoological Lett* (2023)

P-selectin-targeted nanocarriers induce active crossing of the blood-brain barrier via caveolin-1-dependent transcytosis. *Nat Mater* (2023)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.

湖北省武汉市硚口区古田二路环同济大健康科技产业园 8 栋 22 楼

Tel: 400 118 0100

Fax: +86-027-87382710

Website: www.biossci.com

E-mail: support@biossci.com