Goat anti-Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 647

Product Details	
Size	1 mg
Species Reactivity	Guinea pig
Host/Isotype	Goat / IgG
Class	Polyclonal
Type	Secondary Antibody
Conjugate	Alexa Fluor™ 647
Excitation/Emission Max	650/671 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_2735091

Applications	Tested Dilution	Publications
Western Blot (WB)	1:2,500	0 Publication
Immunohistochemistry (IHC)	1-10 µg/mL	0 Publication
Immunohistochemistry (Paraffin) (IHC (P))	-	0 Publication
Immunohistochemistry (PFA fixed) (IHC (PFA))	-	0 Publication
Immunohistochemistry (Frozen) (IHC (F))	-	0 Publication
Immunohistochemistry - Free Floating (IHC (Free))	-	0 Publication
Immunocytochemistry (ICC/IF)	1-10 µg/mL	0 Publication
Miscellaneous PubMed (Misc)	-	0 Publication

Product Specific Information

To minimize cross-reactivity, these goat anti-guinea pig IgG (H+L) whole secondary antibodies have been affinity purified and cross-adsorbed against bovine, chicken, goat, hamster, human, mouse, rabbit, rat, and sheep sera 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.

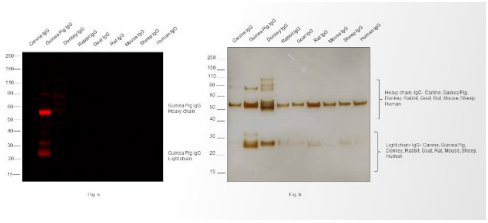
Alexa Fluor dyes are among the most trusted fluorescent dyes available today. Invitrogen™ Alexa Fluor 647 dye is a near-infrared-fluorescent dye with excitation ideally suited to the 647 nm laser line. For stable signal generation in imaging and flow

cytometry, Alexa Fluor 647 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 647 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.

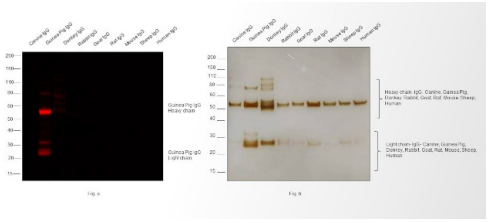
Product will be shipped at Room Temperature.

Product Images For Goat anti-Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 647



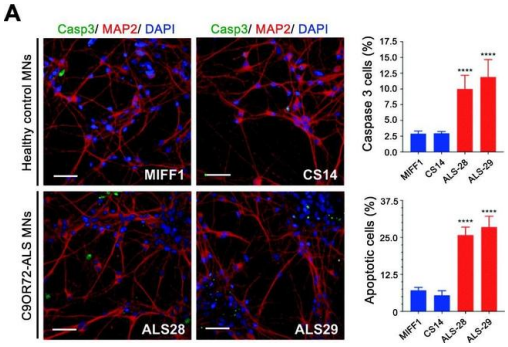
Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21450) in WB

Western blot was performed using Goat anti-Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 647 (Product # A-21450) and 55, 25 kDa bandscorresponding to Guinea Pig IgG Heavy and Light Chain were observed in Guinea Pig but not in Canine IgG, Donkey IgG, Rabbit IgG, Goat IgG, Rat IgG, Mouse IgG, Sheep IgG, and Human IgG. Purified protein (200 ng) of Canine IgG (Lane 1), Guinea Pig IgG(Lane 2), Donkey IgG (Lane 3), Rabbit IgG (Lane 4), Goat IgG (Lane 5), Rat IgG (Lane 6), Mouse IgG (Lane 7), Sheep IgG (Lane 8) and Human IgG (Lane 9) wereelectrophoresed usingNuPAGE™ 4-12% Bis-Tris Protein Gel (Product # NP0321BOX). Resolved proteins were then transferred onto a nitrocellulose membrane(Product # IB23001) byiBlot® 2 Dry Blotting System (Product # IB21001). The blot was probed with Goat anti-Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 647 (Product # A-21450, 1:2500 dilution) and detected usingiBright™ FL1500 (Product # A44115). Silver staining was performed to establish equivalent loading of purified proteins using the Pierce™ Silver Stain Kit (Product # 24612) (Fig b).



Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21450)

Specificity of secondary antibody was demonstrated by specific detection of the target immunoglobulin. Antibody specificity was demonstrated by specific detection of Guinea Pig IgG. Bands at ~55 and 25 kDa corresponding to Guinea Pig IgG Heavy and Light Chain were observed in Guinea Pig IgG but not in other species using Goat anti-Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody, Alexa Fluor™ 647 (Product # A-21450) in Western Blot. {RE}



Guinea Pig IgG (H+L) Highly Cross-Adsorbed Secondary Antibody (A-21450) in ICC/IF

Pharmacological and genetic manipulation of KCCN channels promotes C9-ALS MNs survival and Drosophila locomotor function. A High content images of caspase 3 and MAP2 positive motor neurons from two control (MIFF1 & CS14) and two C9ORF&2-ALS (ALS-28 & ALS-29) lines. Scale bars: 50 µm. Bar charts represent the percentage of caspase 3 positive cells (top right) and of apoptotic cells measured by nuclear fragmentation (bottom right) in healthy and C9-ALS patient-derived motor neurons (mean ± SEM; one-way ANOVA Tukey's multiple comparison test, ****: $p < 0.0001$; N (replicate experiments) = 3). B High-content microscopy automated imaging quantification of caspase-3 positive cells (%) treated with DMSO or increasing concentrations of the KCNN1/3 inhibitor apamin (APA) in healthy, C9-ALS and isogenic CRISPR-Cas9 mediated deletion of the repeat expansion (ISO) patient-derived motor neurons (mean ± SEM; two-way ANOVA Tukey's multiple comparison test, ****: $p < 0.0001$; N (replicate experiments) = 3). C Larval crawling ability of male and female control (G4C3x3) or C9-ALS (G4C2x36) Drosophila crossed or not with two different SK mutant lines driven by nSyb-GAL4 (mean ± SEM; one-way ANOVA; ns: non-significant, *: $p < 0.05$, **: $p < 0.01$, ****: $p < 0.0001$; N (Drosophila larvae) > 5). D Climbing ability of male and female control (G4C3x3) or C9-ALS (G4C2x36) Drosophila crossed or not with two different SK m… Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/34376242), licensed under a CC BY license.

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515 References

A TOPBP1 allele causing male infertility uncouples XY silencing dynamics from sex body formation. Elife (2024)

BDNF and cAMP are neuroprotective in a porcine model of traumatic optic neuropathy. JCI Insight (2024)

Platelet-derived growth factor receptor beta is required for embryonic specification and confinement of the adult white adipose lineage. iScience (2024)

The amygdala NT3-TrkC pathway underlies inter-individual differences in fear extinction and related synaptic plasticity. Mol Psychiatry (2024)

The juxtamembrane linker of synaptotagmin 1 regulates Ca2+ binding via liquid-liquid phase separation. Nat Commun (2024)