

Datasheet for 611-7602**Rabbit IgG (H&L) Antibody Biotin Conjugated****Overview**

Description:	Donkey Anti-Rabbit IgG (H&L) Antibody Biotin Conjugated - 611-7602
Item No.:	611-7602
Size:	2 mg
Applications:	ELISA, EM, IHC
Reactivity:	Rabbit
Host Species:	Donkey

Product Details

Background:	Anti-Rabbit IgG (H&L) Biotin Antibody generated in donkey detects reactivity to Rabbit IgG. Secreted as part of the adaptive immune response by plasma B cells, immunoglobulin G constitutes 75% of serum immunoglobulins. Immunoglobulin G binds to viruses, bacteria, as well as fungi and facilitates their destruction or neutralization via agglutination (and thereby immobilizing them), activation of the complement cascade, and opsonization for phagocytosis. The whole IgG molecule possesses both the F(c) region, recognized by high-affinity Fc receptor proteins, as well as the F(ab) region possessing the epitope-recognition site. Both the Heavy and Light chains of the antibody molecule are present. Secondary Antibodies are available in a variety of formats and conjugate types. When choosing a secondary antibody product, consideration must be given to species and immunoglobulin specificity, conjugate type, fragment and chain specificity, level of cross-reactivity, and host-species source and fragment composition.
Synonyms:	Donkey anti-Rabbit IgG Biotin Conjugated Antibody, Donkey anti-Rabbit IgG Antibody Biotin Conjugation
Host Species:	Donkey
Specificity:	IgG (H&L)
Conjugate:	Biotin
Clonality:	Polyclonal
Format:	IgG

Target Details

Reactivity:	Rabbit
Immunogen:	Rabbit IgG whole molecule
Purity/Specificity:	This product was prepared from monospecific antiserum by immunoaffinity chromatography using Rabbit IgG coupled to agarose beads followed by solid phase adsorption(s) to remove any unwanted reactivities. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-biotin, anti-Donkey Serum, Rabbit IgG and Rabbit Serum.

Application Details

Tested Applications:	ELISA
Suggested Applications:	EM, IHC (Based on references)
Application Note:	Anti-Rabbit IgG (H&L) Biotin Antibody has been tested by ELISA and is ideal for ELISA, western blotting, Immunohistochemistry, Fluorescence Microscopy, Flow Cytometry as well as other antibody detection methods.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:300,000
IHC:	1:500 - 1:3000
WB:	1:3,000 - 1:15,000

Formulation

Physical State:	Lyophilized
Concentration:	2.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	10 mg/mL Bovine Serum Albumin (BSA) - Immunoglobulin and Protease free
Reconstitution Volume:	1.0 mL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

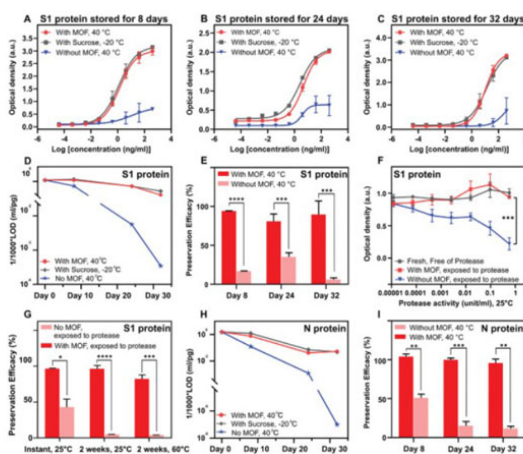
Shipping & Handling

Shipping Condition:	Ambient
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Storage Condition: Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Expiration: Expiration date is one (1) year from date of receipt.

Images

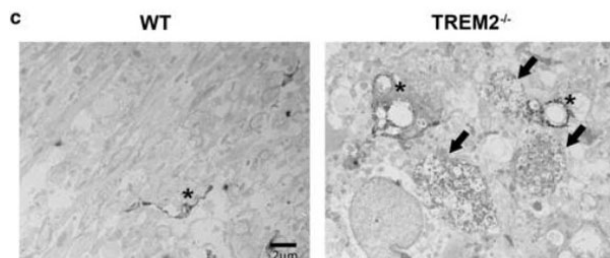


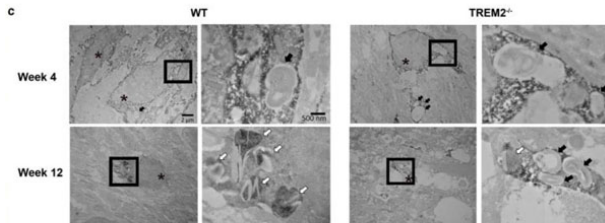
ELISA

ELISA standard curves obtained from microtiter plates coated with SARS-CoV-2 S1 protein and stored under different conditions for A) 8 days, B) 24 days, and C) 32 days. D) Preservation efficacy as calculated from the OD values in the linear range of ELISA standard curves of SARS-CoV-2 S1 protein-coated microtiter plates. E) Comparison of LODs of SARS-CoV-2 S1 protein coated plates stored under different conditions. F) OD values obtained from SARS-CoV-2 S1 protein-coated plates after treatment with different concentrations of proteases. G) Preservation efficacy of ZIF-90 protected plates after thermal treatment and then exposing to protease. H) Comparison of LODs of SARS-CoV-2 N protein coated microtiter plates stored under different conditions. I) Preservation efficacy as calculated from the OD values in the linear range of ELISA standard curves of SARS-CoV-2 N protein precoated plates. E-G, I) $n=2$, * $P < 0.05$, ** $P < 0.01$, *** $P < 0.005$, **** $P < 0.0001$, analyzed by unpaired t-test. Data represent mean $\pm$ s.d. Fig 3. PMID: 34297470.

Immunocytochemistry

Immuno-electron microscopy using biotinylated anti-rabbit and streptavidin-HRP. TREM2^{-/-} mice show more severe axonal pathology after CPZ. (c) EM images of WT and TREM2^{-/-} at 12 weeks of CPZ treatment. Black arrows indicate dystrophic autophagocytic axons and asterisks indicate Iba1+ immunolabeled microglia. Fig. 2. PMID: 25631124.



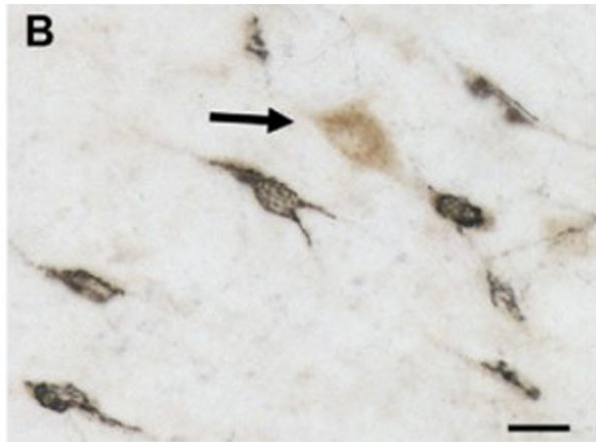


Immunocytochemistry

Immuno-electron microscopy using biotinylated anti-rabbit and streptavidin-HRP.

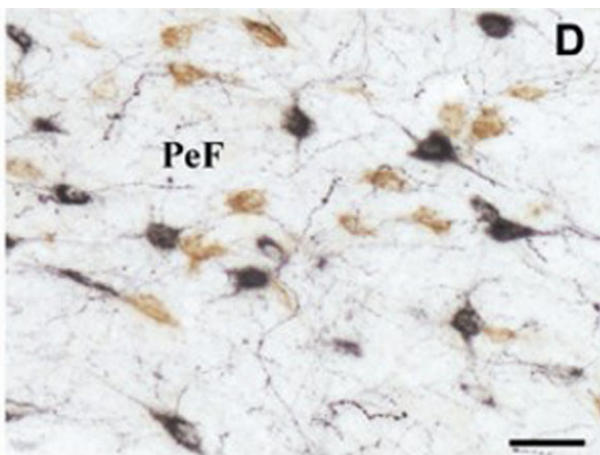
Defect in myelin degradation in TREM2-/-

- microglia. (c) Immuno-EM images of TREM2-/- and WT microglia stained with Iba1 in the CC at 4 and 12 weeks on CPZ treatment. Images on the left in WT and TREM2-/- panels at week 4 and 12 (3,000 $\times$ magnification) depict Iba + microglial cells (asterisks). A higher magnification (15,000 $\times$) for the boxed area is shown on the right of each image. Black arrows indicate phagosomes containing myelin debris. White arrows indicate pi granules. Fig. 7. PMID: 25631124.



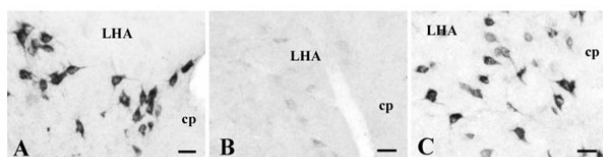
Immunohistochemistry

Immunohistochemistry using Donkey anti-rabbit IgG biotin conjugated. (B) Similar results were observed by using double immunohistochemical staining with MCH (in black) and nesf-1 (in brown). Scale bars 50 m (D); 25 m (B). Fig. 3. PMID: 18573315.



Immunohistochemistry

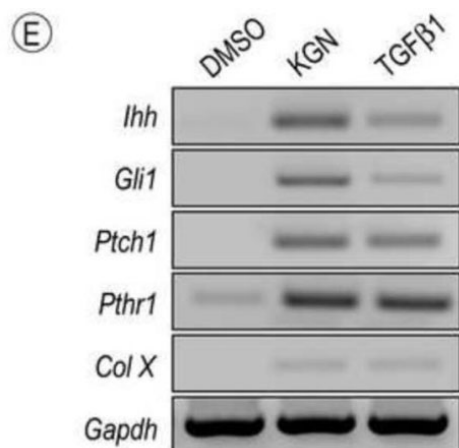
Immunohistochemistry using Donkey anti-rabbit IgG biotin conjugated. (D) Similar results were observed by using double immunohistochemical staining with Hcrt (in black) and nesf-1 (in brown). Scale bars 50 m (D); 25 m (B). Fig. 3. PMID: 18573315.



Immunohistochemistry

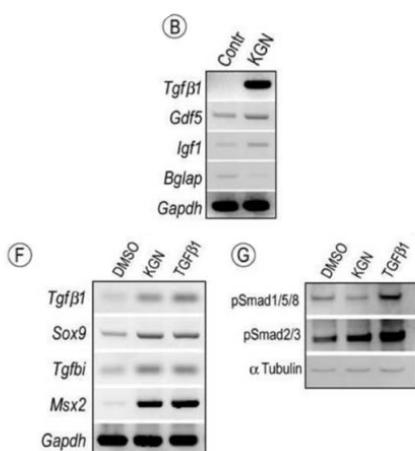
Immunohistochemistry using Donkey anti-rabbit IgG biotin conjugated. Specificity of the Ab24 antiserum.

Photomicrographs of hypothalamic sections from the same rat processed simultaneously for nesf-1 immunodetection (with DAB-ni procedure) with normal Ab24 antiserum (control, A), pre-adsorbed antiserum with nesf-1 antigen (B) or pre-reacted primary antiserum with an excess of MCH (C). Notice the labeling extinction when using the pre-adsorbed Ab24 (B) vs. control (A), supporting its high specificity for nesf-1. Further, the primary antiserum pre-reacted with MCH did not induce qualitative or quantitative staining differences (C) vs. control (A), eliminating the possibility of Ab24 cross-reaction with MCH, co-expressed in nesf-1-immunoreactive neurons. Scale bars 50 μm. Fig. 4. PMID: 18573315.



Western Blot

Hedgehog signaling is stimulated by KGN. (E) RT-PCR analysis of hedgehog signaling and maturation related molecules in E12.5 limb bud mesenchymal cells maintained in micromass culture and treated with 100nM KGN or 2.5 ng/ml TGFβ1 for 24h. Note that similar responses were achieved by treatment with either KGN or TGFβ1. Fig. 5. PMID: 25238962.



Western Blot

Modulation of signaling protein activities and growth factor expression by KGN. (A-B) E12.5 limbs were maintained ex vivo in control conditions or medium containing 1 μ M KGN or 10 μ L/mL DMSO as control. (A) Graphic representation of genes regulated more than two fold by KGN treatment in putative joint sites after 96h. Note the multi-fold induction of TGFβ1, Gdf5 and IGF1 expression with Gapdh set at 1; also included are two genes (Amhr2 and Bglap) that were down-regulated. (B) Image of RT-PCR analysis verifying the changes in expression of indicated genes by KGN. (C-G) E11.5 limbs bud mesenchymal cells were maintained in micromass cultures in control conditions or medium containing 100nM KGN or 2.5 ng/ml TGFβ1 for 24h. Bright field images of micromass cultures stained with alcian blue. Note that both KGN and TGFβ1 stimulated cartilage nodule formation. (F) RT-PCR analysis of changes in gene expression of TGFβ target genes in micromass cultures treated with KGN or TGFβ1 compared to control cultures (DMSO). (G) Immunoblot analysis of levels of phosphorylated Smads in control, KGN-treated and TGFβ1-treated micromass cultures. Both KGN and TGFβ1 strongly up-regulated pSmad2/3 levels, but only TGFβ1 increased pSmad1/5/8 levels. Protein content per lane was verified by immunoblot with α -Tubulin antibodies. Fig. 6. PMID: 25238962.

References

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- Vasek MJ, Garber C, Dorsey D, et al. A complement-microglial axis drives synapse loss during virus-induced memory impairment. *Nature.* (2016)
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- Chen, Y et al. GRK5 promotes F-actin bundling and targets bundles to membrane structures to control neuronal morphogenesis. *The Journal of Cell Biology* (2011)
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Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.