

Datasheet for 811-7102**Fab Rabbit IgG (H&L) Antibody****Overview**

Description:	Donkey Fab Anti-Rabbit IgG (H&L) Antibody - 811-7102
Item No.:	811-7102
Size:	1 mg
Applications:	IHC
Reactivity:	Rabbit
Host Species:	Donkey

Product Details

Background:	Fab Anti-Rabbit IgG (H&L) Antibody generated in donkey detects immunoglobulin g from rabbit, both heavy and light chains of the antibody molecule are present. Each IgG has two antigen binding sites. Representing approximately 75% of serum immunoglobulins, IgG is the most abundant antibody isotype found in the circulation. IgG molecules are synthesized and secreted by plasma B cells. 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 Fab Anti-Rabbit IgG Antibody, Donkey Fab Fragment Anti-Rabbit IgG Antibody
Host Species:	Donkey
Specificity:	IgG (H&L)
Clonality:	Polyclonal
Format:	IgG Fab

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, papain digestion and chromatographic separation. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-Donkey Serum. No reaction was observed against anti-Papain or anti-Donkey IgG F(c).
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Application Details

Suggested Applications:	IHC (Based on references)
Application Note:	Fab Anti-Rabbit IgG (H&L) Antibody is suitable for highly specific immunological methods requiring extremely low background levels, absence of F(c) mediated binding, lot-to-lot consistency, high titer and specificity.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:20,000 - 1:100,000
IHC:	1:1,000 - 1:5,000
WB:	1:2,000 - 1:10,000

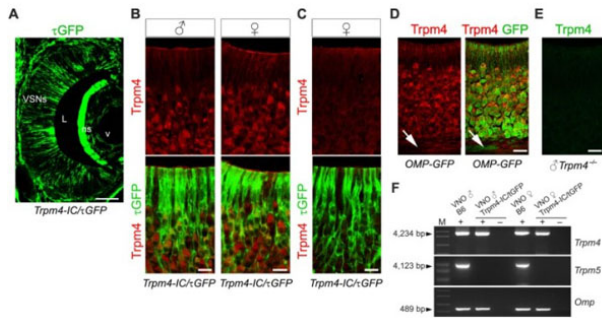
Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1.0 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:	None

Shipping & Handling

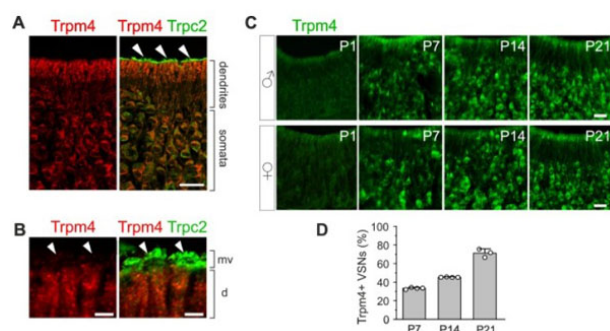
Shipping Condition:	Wet Ice
Storage Condition:	Store vial at 4° C prior to opening. This product is stable at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

Double labeling of Trpm4 (red) and τ GFP (green). Trpm4 is expressed in VSNs of sexually naïve male and female mice. (A) τ GFP immunostaining (green) in a coronal cryosection of the left VNO of a 7-week-old Trpm4-IC/eR26- τ GFP mouse reports widespread Trpm4 gene expression in sensory neurons and in supporting cells of the VNE. τ GFP-IR is also present in cells of the non-sensory (ns) epithelium and in vascular endothelial cells. (B) Magnification of the VNE of male (♂) and female (♀) Trpm4- τ GFP reporter mice show that Trpm4 protein (red) colocalizes with τ GFP fluorescence (green) in VSNs but is absent in supporting cells. (C) In about 50% of females, VSNs were devoid of Trpm4 protein despite the presence of τ GFP. (D) The vast majority of Trpm4+ VSNs (red) colocalizes with the olfactory marker protein (OMP, green), a marker for mature VSNs, in somata, dendrites and dendritic knobs, but not in VSN axon bundles (arrows). (E) The specificity of the Trpm4 antibody is verified by the absence of immunoreactivity in the VNO of Trpm4-/- male mice. (F) RT-PCR analysis of Trpm4 and Trpm5 mRNA prepared from whole VNO and from isolated VSNs (7–10 cells/sample) of male and female B6 and Trpm4-IC/eR26- τ GFP mice. Sequence analysis confirmed that the 4.2 kb Trpm4 amplicon (arrowhead) in each sample encodes full-length Trpm4 mRNA. The 4.1 kb Trpm5 amplicon (arrowhead) encoding the full-length Trpm5 mRNA was only detected in whole VNO but absent in isolated VSNs. Identity of dissociated VSNs was verified by RT-PCR for olfactory marker protein (Omp). Control reactions omitting reverse transcriptase (-RT) showed no PCR products ruling out genomic DNA contamination. Scale bars (A) 200 μ m, (B-E) 20 μ m. Fig. 2. PMID: 32298804.



Immunohistochemistry

Trpc2 but not Trpm4 protein localizes to VSN microvilli. (A) Double labeling of Trpm4 (red) and Trpc2 (green) depicts co-localization of both TRP channels in VSN somata and dendrites (right panel). The most apical layer (arrowheads) shows robust Trpc2 labeling (green). (B) High-resolution confocal image (1- μ m optical section) of the dendritic endings (d) of VSNs shows that microvilli (mv) are heavily labeled for Trpc2 (green, arrowheads) whereas Trpm4-IR (red) was not detected in the microvilli. (C) Representative examples of Trpm4-IR (green) in coronal sections of VNE from B6 mice at postnatal days (P) 1, P7, P14 and P21. Trpm4 protein expression emerges at around P7. Number of Trpm4+ VSNs increases with age. (D) Quantification of Trpm4+ VSNs over developmental time as percentages of the total number of VSNs determined by nuclear Hoechst staining: P7 ($33 \pm 1\%$, $n = 2$ male and 2 female mice, 13 sections, 3–4 sections/mouse); P14 ($45 \pm 0.2\%$, $n = 2$ male and 2 female mice, 15 sections, 3–4 sections/mouse); P21 ($71 \pm 4.5\%$, $n = 1$ male and 2 female mice, 12 sections, 4 sections/mouse). Individual data points represent the averaged cell counts obtained from a single mouse. Data are expressed as means $\pm$ SD. Scale bars (A, B) 20 μ m, (C) 2 μ m. Fig. 3. PMID: 32298804.

References

- Eckstein E et al. Cyclic regulation of Trpm4 expression in female vomeronasal neurons driven by ovarian sex hormones. *Mol Cell Neurosci.* (2020)

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.