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Datasheet for 600-401-FQ7

TRPV4 Antibody

Overview

Description:	Anti-TRPV4 (RABBIT) Antibody - 600-401-FQ7
Item No.:	600-401-FQ7
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human
Host Species:	Rabbit

Product Details

Background:	The transient receptor potential (TRP) protein family consists of a diverse group of cation channels functioning in a variety of homeostatic and regulatory pathways. Four subfamilies exist, based on channel domain homology: C type (canonical), V type (vanilloid receptor related), M type (melastatin related) and P type (PKD) (1). TRPV4, belongs to the V type subfamily and plays a role in systemic osmoregulation (2,3). TRPV4 is a calcium channel multi-pass membrane protein activated by various stimuli, including thermal stress, fatty acid metabolites and hypotonicity (3). TRPV4 is highly expressed in lung and kidney and widely expressed in brain. It plays an important role in regulating neural excitability (4).
Synonyms:	TRPV4 Antibody, SMAL, VRL2, CMT2C, SPSMA, TRP12, VROAC, HMSN2C, OTRPC4, SSQTL1, Transient receptor potential cation channel subfamily V member 4, Osm-9-like TRP channel 4, TrpV4
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	TRPV4
Reactivity:	Human
Immunogen Type:	Conjugated Peptide

Immunogen:	Anti-TRPV4 antibody was prepared from whole rabbit serum produced by repeated immunizations with an 18 amino acid peptide near the internal region of human TRPV4.
Purity/Specificity:	Anti-TRPV4 antibody was affinity purified from monospecific antiserum by immunoaffinity chromatography. TRPV4 antibody is human specific. At least six isoforms of TRPV4 are known to exist. This antibody is predicted to not cross-react with other TRP protein family members.
Relevant Links:	• UniProtKB - Q9HBA0 • GeneID - 59341 • NCBI - NP_001170899.1

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-TRPV4 Antibody has been tested for use in ELISA, Western Blotting, Immunohistochemistry and Immunofluorescence. Specific conditions for reactivity should be optimized by the end user. Expect a band at approximately 98 kDa in Western Blots of specific cell lysates and tissues.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	1:10,000 - 1:20,000
IF:	20 µg/mL
IHC:	5 µg/mL
WB:	1-2 µg/mL

Formulation

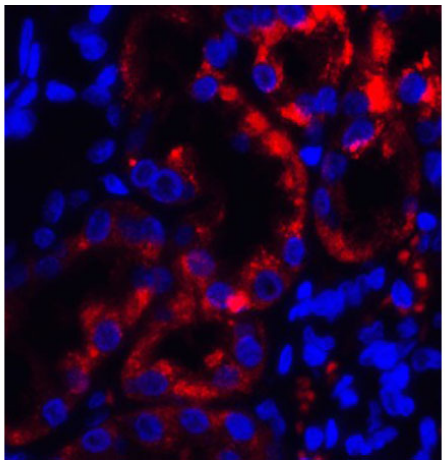
Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

Shipping & Handling

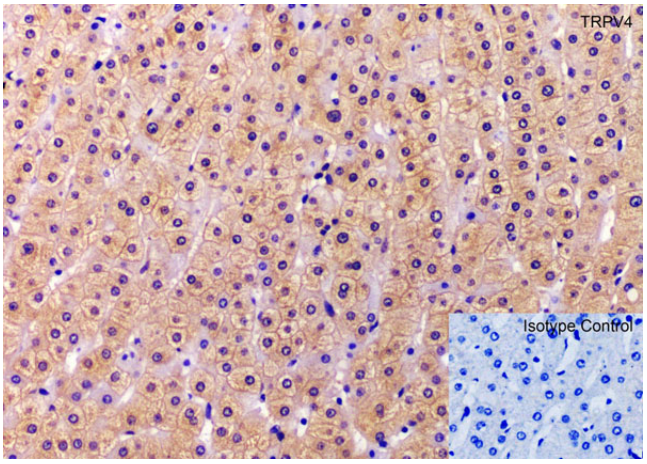
Shipping Condition:	Dry Ice

Storage Condition:	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. 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

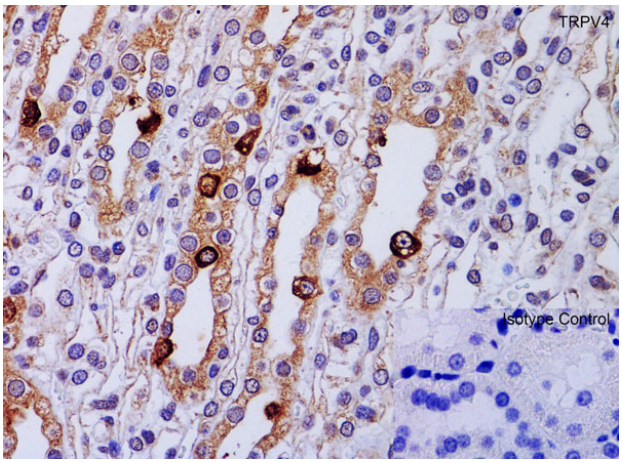


Immunofluorescence Microscopy
Immunofluorescence of TRPV4.
Tissue: Human Kidney.
Fixation: 4% paraformaldehyde-fixed.
Primary Antibody: TRPV4 at 5 µg/mL.
Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (red) and DAPI staining (blue).



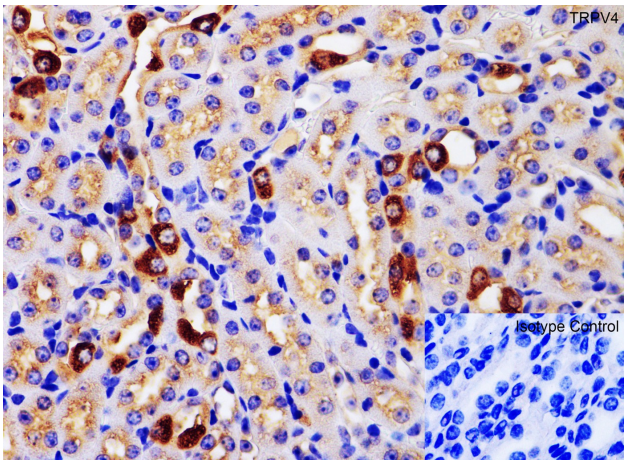
Immunohistochemistry
Immunohistochemistry of TRPV4.
Tissue: human liver tissue.
Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-TRPV4 antibody at 2 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



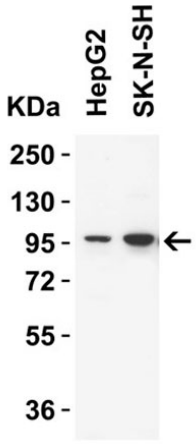
Immunohistochemistry
Immunohistochemistry of TRPV4.
Tissue: rat kidney tissue.
Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-TRPV4 antibody at 2 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.

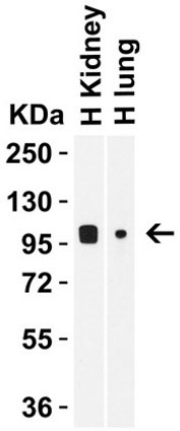


Immunohistochemistry
Immunohistochemistry of TRPV4.
Tissue: mouse kidney tissue.
Fixation: paraffin-embedded, fixed with formaldehyde and blocked with 10% serum for 1 h at RT.
Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-TRPV4 antibody at 2 µg/ml overnight at 4°C.
Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.

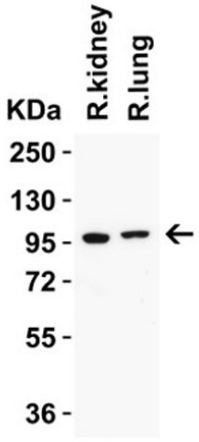


Western Blot
Western Blot of TRPV4.
Load: 15µg of human cell lysates per lane.
Primary Antibody: TRPV4 at 0.5 µg/mL for 1h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot
Western Blot of TRPV4.
Load: 15µg of human tissue lysates per lane.
Primary Antibody: TRPV4 at 0.5 µg/mL for 1h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

Western Blot
Western Blot of TRPV4.
Load: 15µg of mouse tissue lysates per lane.
Primary Antibody: TRPV4 at 0.5 µg/mL for 1h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot
Western Blot of TRPV4.
Load: 15µg of rat tissue lysates per lane.
Primary Antibody: TRPV4 at 0.5 µg/mL for 1h incubation at RT in 5% NFDM/TBST.
Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

Disclaimer

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