

**Datasheet for 600-401-FQ7****TRPV4 Antibody****Overview**

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

**Product Details**

<b>Background:</b>	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).
<b>Synonyms:</b>	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
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	IgG

**Target Details**

<b>Gene Name:</b>	TRPV4
<b>Reactivity:</b>	Human
<b>Immunogen Type:</b>	Conjugated Peptide

<b>Immunogen:</b>	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.
<b>Purity/Specificity:</b>	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.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - Q9HBA0</a></li><li>• <a href="#">GeneID - 59341</a></li><li>• <a href="#">NCBI - NP_001170899.1</a></li></ul>

## Application Details

<b>Tested Applications:</b>	ELISA, IF, IHC, WB
<b>Application Note:</b>	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.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:10,000 - 1:20,000
<b>IF:</b>	20 µg/mL
<b>IHC:</b>	5 µg/mL
<b>WB:</b>	1-2 µg/mL

## Formulation

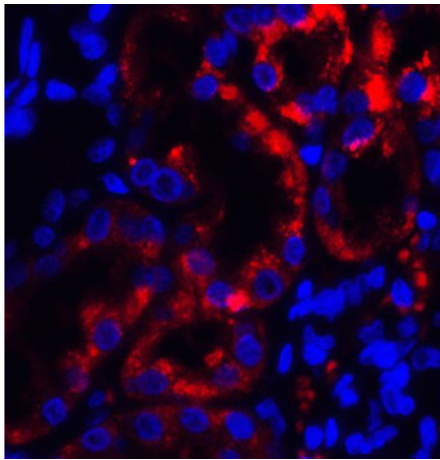
<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	1 mg/mL by UV absorbance at 280 nm
<b>Buffer:</b>	0.01 M Sodium Phosphate, 0.25 M Sodium Chloride, pH 7.2
<b>Preservative:</b>	0.02% (w/v) Sodium Azide
<b>Stabilizer:</b>	None

## Shipping & Handling

<b>Shipping Condition:</b>	Dry Ice
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<b>Storage Condition:</b>	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.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



### Immunofluorescence Microscopy

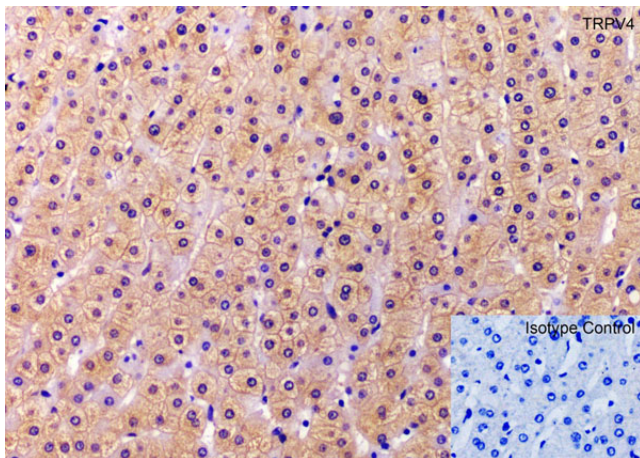
Immunofluorescence of TRPV4.

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.

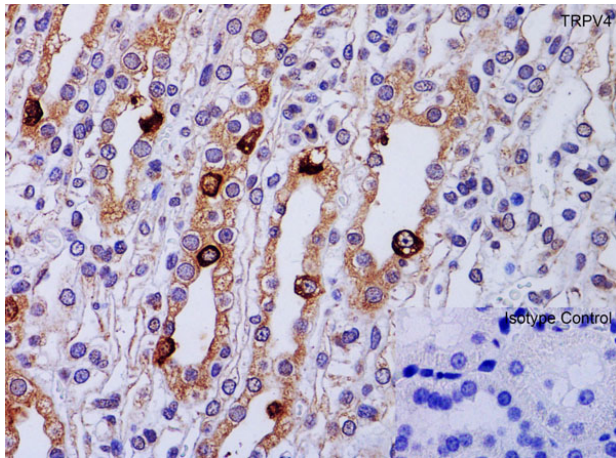
Tissue: human liver tissue.

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.

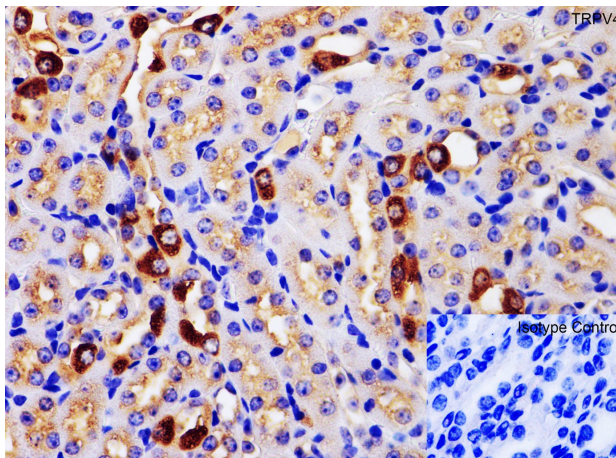
Tissue: rat kidney tissue.

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.

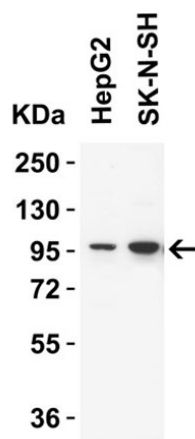
Tissue: mouse kidney tissue.

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.

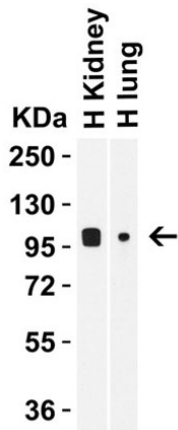

**Western Blot**

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.

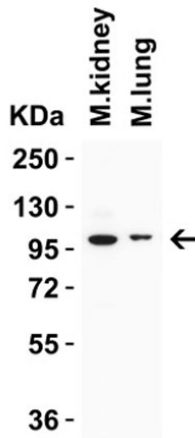
**Western Blot**

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.

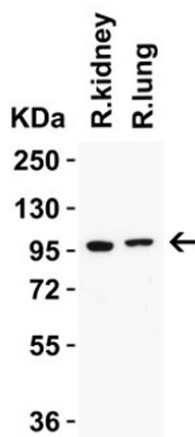
**Western Blot**

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**

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.