

Anti-TRPV4 Antibody

Catalog Number: A00565

About TRPV4

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).

Overview

Product Name	Anti-TRPV4 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TRPV4 Antibody (Catalog # A00565). Tested in ELISA, WB, IHC-P, IF applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IF, IHC-P, WB
Clonality	Polyclonal
Formulation	TRPV4 antibody is supplied in PBS containing 0.02% sodium azide.
Storage Instructions	TRPV4 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.
Host	Rabbit
Uniprot ID	Q9HBA0

Technical Details

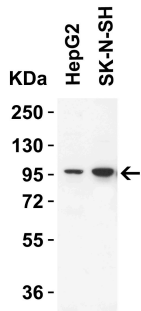
Immunogen	TRPV4 antibody was raised against an 18 amino acid peptide near the center of human TRPV4. The immunogen is located within amino acids 380 - 430 of TRPV4.
Predicted Reactive Species	Mouse, Rat
Cross Reactivity	TRPV4 antibody is human specific. At least six isoforms of TRPV4 are known to exist. This antibody is predicted to not cross-react with other TRP protein family members.
Isotype	IgG
Form	Liquid
Concentration	1 mg/mL
Purification	TRPV4 antibody is affinity chromatography purified via peptide column.

Suggested Dilutions

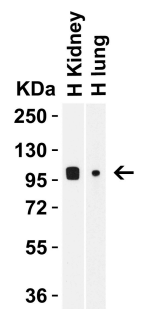
WB: 0.5-2 ug/mL; IHC-P: 1-2 ug/mL; IHC-P/IF: 5-20 ug/mL.

Antibody validated: Western Blot in human, mouse and rat samples; Immunohistochemistry in human, mouse, and rat samples; Immunofluorescence in the human sample. All other applications and species not yet tested.

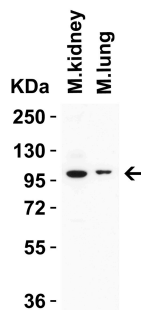
Anti-TRPV4 Antibody (A00565) Images



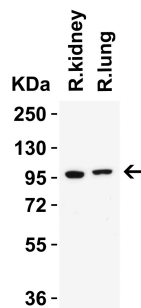
WB Validation in Human Cells Loading: 15 ug of lysate
Antibodies: TRPV4, A00565, 0.5 u g/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



WB Validation in Human Tissues Loading: 15 ug of lysate
Antibodies: TRPV4, A00565, 0.5 ug/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

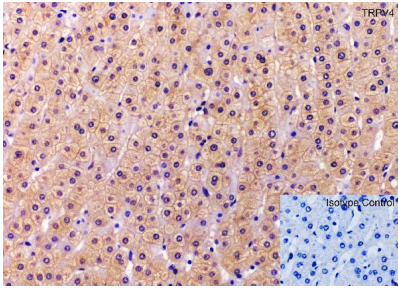


WB Validation in Mouse Tissues Loading: 15 ug of lysate
Antibodies: TRPV4, A00565, 0.5 ug/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

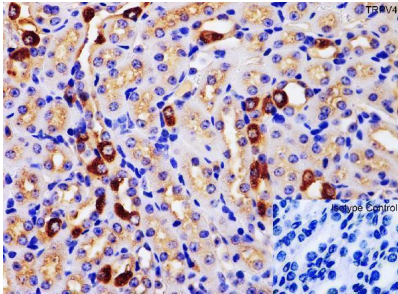


WB Validation in Rat Tissues Loading: 15 ug of lysate
Antibodies: TRPV4, A00565, 0.5 ug/mL , 1 h incubation at RT in 5% NFDm/TBST. Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.

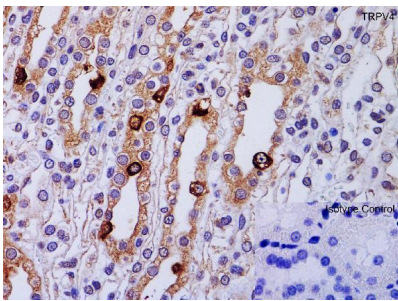
Immunohistochemistry Validation of TRPV4 in Human Liver
Immunohistochemical analysis of paraffin-embedded human liver tissue using anti-TRPV4 antibody (A00565) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG



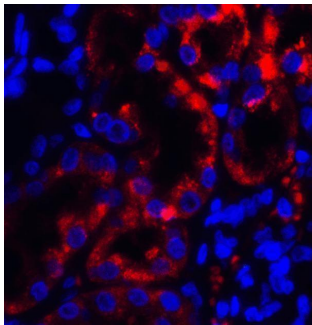
H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry Validation of TRPV4 in Mouse Kidney
Immunohistochemical analysis of paraffin-embedded mouse kidney tissue using anti-TRPV4 antibody (A00565) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunohistochemistry Validation of TRPV4 in Rat Kidney
Immunohistochemical analysis of paraffin-embedded rat kidney tissue using anti-TRPV4 antibody (A00565) at 2 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4°C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence of TRPV4 in human kidney tissue
with TRPV4 antibody at 5 ug/ml. Red: TRPV4 Antibody (A00565)
Blue: DAPI staining

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Anti-TRPV4 Antibody

For Research Use Only. Not for use in diagnostic procedures.