

Anti-TRPC6 Antibody

Catalog Number: PA1754

About TRPC6

Transient receptor potential cation channel, subfamily C, member 6, also known as TRPC6, is a human gene encoding a protein of the same name. The protein encoded by this gene forms a receptor-activated calcium channel in the cell membrane. The channel is activated by diacylglycerol and is thought to be under the control of a phosphatidylinositol second messenger system. Activation of this channel occurs independently of protein kinase C and is not triggered by low levels of intracellular calcium. Defects in this gene are a cause of focal segmental glomerulosclerosis 2 (FSGS2).

Overview

Product Name	Anti-TRPC6 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-TRPC6 Antibody catalog # PA1754. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	Q9Y210

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human TRPC6, different from the related rat and mouse sequences by three amino acids.
Predicted Reactive Species	Monkey
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.

Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat, Mouse, By Heat</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p>

Anti-TRPC6 Antibody (PA1754) Images

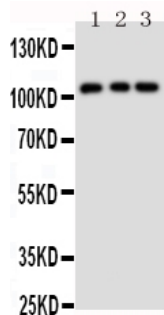


Figure 1. Western blot analysis of TRPC6 using anti-TRPC6 antibody (PA1754).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: Rat Lung Tissue Lysate

Lane 2: 293T Cell Lysate

Lane 3: 293T Cell Lysate

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRPC6 antigen affinity purified polyclonal antibody (Catalog # PA1754) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TRPC6 at approximately 106-120KD. The expected band size for TRPC6 is at 106KD.

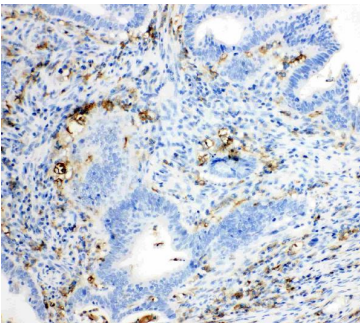


Figure 2. IHC analysis of TRPC6 using anti-TRPC6 antibody (PA1754).

TRPC6 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TRPC6 Antibody (PA1754) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

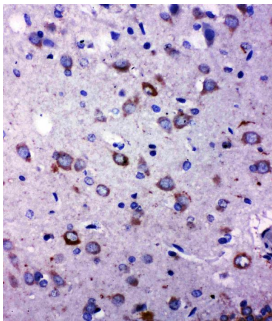


Figure 3. IHC analysis of TRPC6 using anti-TRPC6 antibody (PA1754).

TRPC6 was detected in paraffin-embedded section of Rat Brain tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-TRPC6 Antibody (PA1754) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

Figure 4. Western blot analysis of TRPC6 using anti-TRPC6 antibody (PA1754).



Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.

Lane 1: mouse lung Tissue Lysate

After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-TRPC6 antigen affinity purified polyclonal antibody (Catalog # PA1754) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for TRPC6 at approximately 106KD. The expected band size for TRPC6 is at 106KD.

3 Publications Citing This Product

1. PubMed ID: 32844288, Wang Y, Liu L, Tao H, Wen L, Qin S. TRPC6 participates in the development of blood pressure variability increase in sino-aortic denervated rats. Heart Vessels. 2020 Dec;35(12):1755-1765. doi: 10.1007/s00380-020-01682-1. Epub 2020 Aug 25. PMID: 32844288.
2. PubMed ID: 27472391, TRPC1/TRPC3 channels mediate lysophosphatidylcholine-induced apoptosis in cultured human coronary artery smooth muscles cells
3. PubMed ID: 20307499, Sun Yh, Li Yq, Feng Sl, Li Bx, Pan Zw, Xu Cq, Li Tt, Yang Bf. Biochem Biophys Res Commun. 2010 Apr 16;394(4):955-61. Doi: 10.1016/J.Bbrc.2010.03.096. Epub 2010 Mar 20. Calcium-Sensing Receptor Activation Contributed To Apoptosis Stimulates Trpc6 C...

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