

Anti-TRPM4 Antibody Picoband™

Catalog Number: PB9902

About TRPM4

Transient receptor potential cation channel subfamily M member 4 (hTRPM4), also known as melastatin-4, is a protein that in humans is encoded by the TRPM4 gene. It is mapped to 19q13.33. The protein encoded by this gene is a calcium-activated nonselective ion channel that mediates transport of monovalent cations across membranes, thereby depolarizing the membrane. The activity of the encoded protein increases with increasing intracellular calcium concentration, but this channel does not transport calcium. Two transcript variants encoding different isoforms have been found for this gene.

Overview

Product Name	Anti-TRPM4 Antibody Picoband™
Reactive Species	Human
Description	Boster Bio Anti-TRPM4 Antibody Picoband™ catalog # PB9902. Tested in IHC, WB applications. This antibody reacts with Human.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	Q8TD43

Technical Details

Immunogen	E.coli-derived human TRPM4 recombinant protein (Position: F1079-D1214). Human TRPM4 shares 76.8% and 77.8% amino acid (aa) sequence identity with mouse and rat TRPM4, respectively.
Predicted Reactive Species	Hamster
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	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, By Heat

Anti-TRPM4 Antibody Picoband™ (PB9902) Images

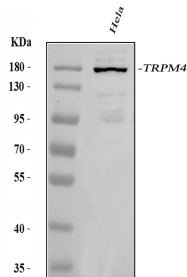


Figure 1. Western blot analysis of TRPM4 using anti-TRPM4 antibody (PB9902).

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 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA 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-TRPM4 antigen affinity purified polyclonal antibody (Catalog # PB9902) 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 1:5000 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 TRPM4 at approximately 167 kDa. The expected band size for TRPM4 is at 134 kDa.

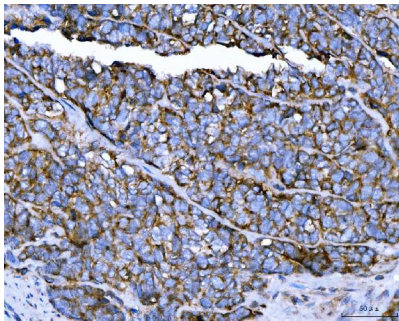


Figure 2. IHC analysis of TRPM4 using anti-TRPM4 antibody (PB9902).

TRPM4 was detected in a paraffin-embedded section of human prostate cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TRPM4 Antibody (PB9902) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

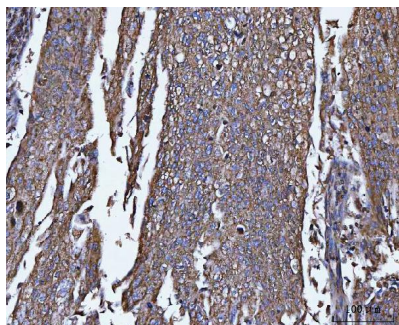


Figure 3. IHC analysis of TRPM4 using anti-TRPM4 antibody (PB9902).

TRPM4 was detected in a paraffin-embedded section of human squamous cell carcinoma of cervix tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-TRPM4 Antibody (PB9902) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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