

## Anti-TRPV1 Antibody Picoband®

Catalog Number: A00128-4

### About TRPV1

The transient receptor potential cation channel, subfamily V, member 1 (TRPV1), also known as the capsaicin receptor is a protein which in humans is encoded by the TRPV1 gene. TRPV1 (also called Vanilloid receptor type 1) is a ligand-gated nonselective cation channel that is considered to be an important integrator of various pain stimuli such as endogenous lipids, capsaicin, heat, and low pH. In addition to expression in primary afferents, TRPV1 is also expressed in the CNS. Cui M et al. (2006) demonstrate that TRPV1 receptors in the CNS play an important role in pain mediated by central sensitization. And the significant CNS penetration is necessary for a TRPV1 antagonist to produce broad-spectrum analgesia. And TRPV1 also participates in normal bladder function and is essential for normal mechanically evoked purinergic signaling by the urothelium.

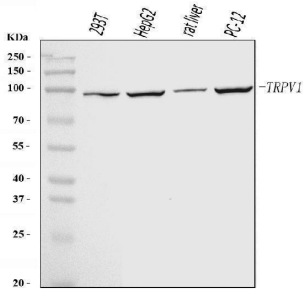
### Overview

Product Name	Anti-TRPV1 Antibody Picoband®
Reactive Species	Human, Rat
Description	Boster Bio Anti-TRPV1 Antibody Picoband® catalog # A00128-4. Tested in ELISA, Flow Cytometry, IF, ICC, WB applications. This antibody reacts with Human, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	ELISA, Flow Cytometry, IF, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	Q8NER1

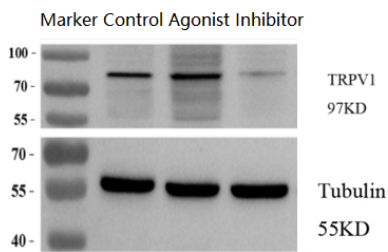
### Technical Details

Immunogen	E.coli-derived human TRPV1 recombinant protein (Position: E107-A800).
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 ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Rabbit IgG
Form	Lyophilized

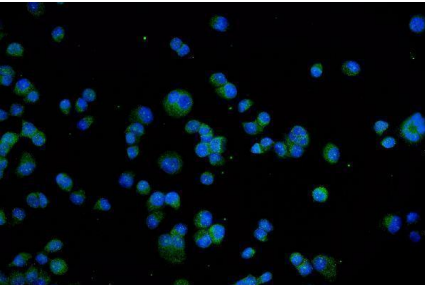
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.25-0.5 ug/ml, Human, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 <sup>6</sup> cells, Human ELISA, 0.1-0.5 ug/ml, -



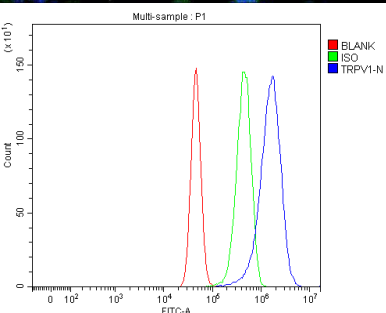
Western blot analysis of TRPV1 using anti-TRPV1 antibody (A00128-4). Electrophoresis was performed gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded under reducing conditions. Lane 1: human 293T whole cell lysates, Lane 2: human HepG2 whole cell lysate tissue lysates, Lane 4: rat PC-12 whole cell lysates. After electrophoresis, proteins were transferred to membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hours. The membrane was incubated with rabbit anti-TRPV1 antigen affinity purified polyclonal antibody (Catalog # A00128-4) overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit 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 TRPV1 at approximately 95 kDa. The expected band size for TRPV1 is at 95 kDa.



Western blot analysis of TRPV1 using anti-TRPV1 antibody (A00128-4). Electrophoresis was performed gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded under reducing conditions. Lane 1: Control-rat MADB106 breast cancer cells, Lane 2: Agonist treatment group-rat MADB106 breast cancer cells, Lane 3: Inhibitor treatment group-rat MADB106 breast cancer cells. 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-TRPV1 antigen affinity purified polyclonal antibody (A00128-4) at 1:2000 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 1:10,000 for 1 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. The expected band size for TRPV1 is at 95 kDa.



IF analysis of TRPV1 using anti-TRPV1 antibody (A00128-4). TRPV1 was detected in an immunocytochemistry analysis of rat MADB106 breast cancer cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 minutes at 95°C. The cells were blocked with 10% goat serum. And then incubated with 5 ug/mL rabbit anti-TRPV1 Antibody (A00128-4) for 1 hour at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 1 hour at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope with appropriate filter set for the label used.



Flow Cytometry analysis of U87 cells using anti-TRPV1 antibody (A00128-4). Overlay histogram showing TRPV1 staining in U87 cells. The x-axis represents FITC-A intensity (log scale) and the y-axis represents Count (x10<sup>3</sup>). The legend indicates: BLANK (Red line), ISO (Green line), and TRPV1-N (Blue line). The TRPV1-N peak is shifted to the right compared to the ISO and BLANK controls, indicating intracellular TRPV1 staining.

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Anti-TRPV1 Antibody

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