BOSTER
antibody and ELISA experts

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# Anti-ICAM1 Antibody Picoband™

**Catalog Number:** PB9017

## About ICAM1

Intercellular adhesion molecule-1 (ICAM-1) is an integral membrane protein, a member of the immunoglobulin superfamily, and a ligand for lymphocyte function-associated (LFA) antigens, a beta 2 leukocyte integrin. The normal function of human ICAM-1 is to provide adhesion between endothelial cells and leukocytes after injury or stress. ICAM-1 binds to leukocyte function-associated antigen (LFA-1) or macrophage-1 antigen (Mac-1). It is found on leukocytes, fibroblasts, epithelial cells and endothelial cells and its expression is regulated by inflammatory cytokines. ICAM-1 has a tissue distribution similar to that of the major histocompatibility complex class II antigens and is likely to play a role in inflammatory responses.

## Overview

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| Product Name | Anti-ICAM1 Antibody Picoband™ |
| Reactive Species | Human |
| Description | Boster Bio Anti-ICAM1 Antibody Picoband™ catalog # PB9017. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human. |
| Application | Flow Cytometry, IF, IHC, IHC-F, ICC, WB |
| Clonality | Polyclonal |
| Formulation | Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 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 | P05362 |

## Technical Details

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| Immunogen | E.coli-derived human ICAM1 recombinant protein (Position: L214-P532). Human ICAM1 shares 52% and 48% amino acid (aa) sequences identity with mouse and rat ICAM1, respectively. |
| Predicted Reactive Species | Bovine, Chicken, Horse, Monkey, Rabbit |
| 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), IHC(F) and ICC. |
| Cross Reactivity | No cross-reactivity with other proteins |
| Isotype | Rabbit IgG |
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| 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.<br>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.<br>Some PubMed article(s) citing the expression level of this target are as follows:<br>Boster Bio's internal QC testing used:<br>Western blot, 0.1-0.5ug/ml, Human<br>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat<br>Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human<br>Immunocytochemistry, 0.5-1ug/ml, Human<br>Immunofluorescence, 2ug/ml, Human<br>Flow Cytometry, 1-3ug/1x$10^6$ cells, Human |

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# Anti-ICAM1 Antibody Picoband™ (PB9017) Images

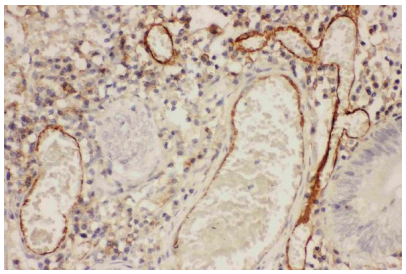

Figure 1. IHC analysis of ICAM1 using anti-ICAM1 antibody (PB9017).
ICAM1 was detected in paraffin-embedded section of human intestinal cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-ICAM1 Antibody (PB9017) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

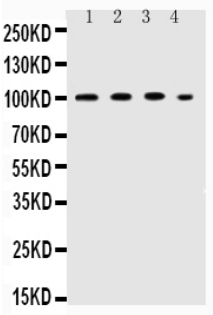


Figure 2. Western blot analysis of ICAM1 using anti-ICAM1 antibody (PB9017).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
Lane 1: HEPG2 Whole Cell Lysate,
Lane 2: K562 Whole Cell Lysate,
Lane 3: A549 Whole Cell Lysate,
Lane 4: HT1080 Whole 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-ICAM1 antigen affinity purified polyclonal antibody (Catalog # PB9017) 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 ICAM1 at approximately 100KD. The expected band size for ICAM1 is at 58KD.

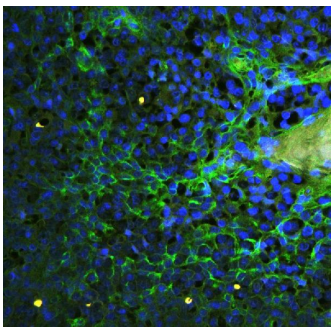

Figure 3. IF analysis of ICAM1 using anti-ICAM1 antibody (PB9017)
ICAM1 was detected in paraffin-embedded section of human tonsil tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution ) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-ICAM1 Antibody (PB9017) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Figure 4. IF analysis of ICAM1 using anti-ICAM1 antibody

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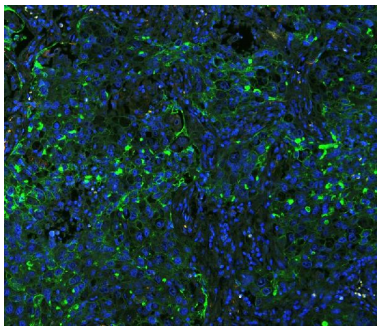

(PB9017)
ICAM1 was detected in paraffin-embedded section of human Lung cancer tissues. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution ) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL rabbit anti-ICAM1 Antibody (PB9017) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

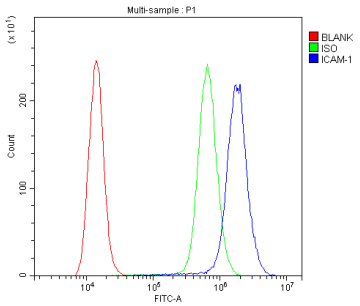


Figure 5. Flow Cytometry analysis of A431 cells using anti-ICAM1 antibody (PB9017).
Overlay histogram showing A431 cells stained with PB9017 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ICAM1 Antibody (PB9017,1ug/1x$10^6$ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x$10^6$ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x$10^6$) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

## 48 Publications Citing This Product

1. PubMed ID: 10.1254/jphs.08083FP, Possible Mechanism of the Anti-inflammatory Activity of Ruscogenin: Role of Intercellular Adhesion Molecule-1 and Nuclear Factor-kappaB

2. PubMed ID: 10.3892/ol.2017.6247, Effects of remifentanil on hemodynamics, liver function and ICAM-1 expression in liver cancer patients undergoing surgery

3. PubMed ID: 10.3748/wjg.v11.i10.1508, Activation of nuclear factor-kappa B and effects of pyrrolidine dithiocarbamate on TNBS-induced rat colitis

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