

Anti-Cytokeratin 19/KRT19 Antibody Picoband™

Catalog Number: PB9715

About KRT19

Keratin, type I cytoskeletal 19 is a protein that in humans is encoded by the KRT19 gene. The protein encoded by this gene is a member of the keratin family. It is specifically expressed in the periderm, the transiently superficial layer that envelops the developing epidermis. The type I cytokeratins are clustered in a region of chromosome 17q12-q21. Due to its high sensitivity, KRT19 is the most used marker for the RT-PCR-mediated detection of tumor cells disseminated in lymph nodes, peripheral blood, and bone marrow of breast cancer patients. Keratin 19 is often used together with keratin 8 and keratin 18 to differentiate cells of epithelial origin from hematopoietic cells in tests that enumerate circulating tumor cells in blood.

Overview

Product Name	Anti-Cytokeratin 19/KRT19 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Cytokeratin 19/KRT19 Antibody Picoband™ catalog # PB9715. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P08727

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cytokeratin 19, different from the related mouse and rat sequences by nine amino acids.
Predicted Reactive Species	Bovine
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) and 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	<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>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat</p> <p>Immunocytochemistry/Immunofluorescence, 2ug/ml, Human</p> <p>Immunofluorescence, 5ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

Anti-Cytokeratin 19/KRT19 Antibody Picoband™ (PB9715) Images

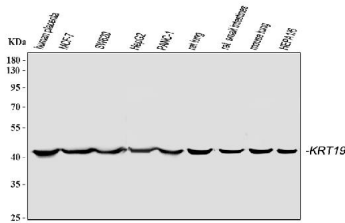


Figure 1. Western blot analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PB9715).

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 placenta tissue lysates.

Lane 2: human MCF-7 whole cell lysates,

Lane 3: human SW620 whole cell lysates,

Lane 4: human HepG2 whole cell lysates,

Lane 5: human PANC-1 whole cell lysates,

Lane 6: rat lung tissue lysates,

Lane 7: rat small intestine tissue lysates,

Lane 8: mouse lung tissue lysates,

Lane 9: mouse HEPA1-6 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-Cytokeratin 19 antigen affinity purified polyclonal antibody (Catalog # PB9715) 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 Cytokeratin 19 at approximately 44 kDa. The expected band size for Cytokeratin 19 is at 44 kDa.

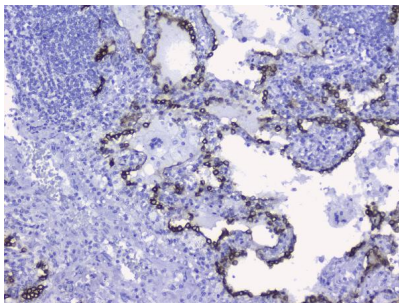


Figure 2. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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.

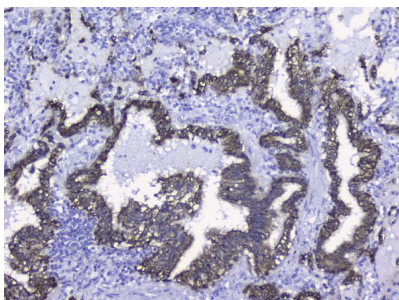


Figure 3. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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.

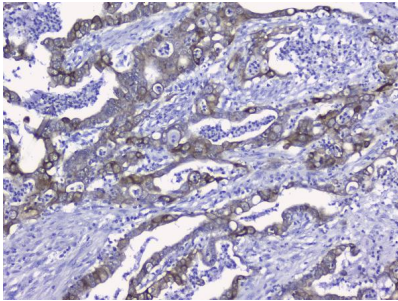


Figure 4. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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.

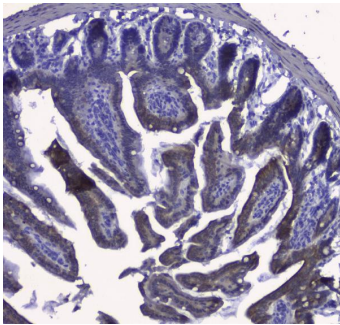


Figure 5. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 was detected in paraffin-embedded section of mouse small intestine 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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

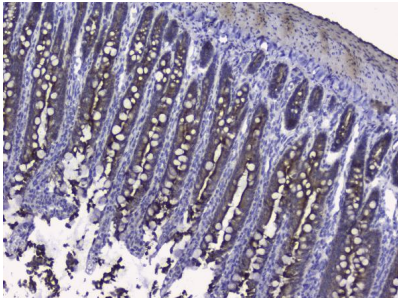


Figure 6. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 was detected in paraffin-embedded section of rat small intestine 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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.

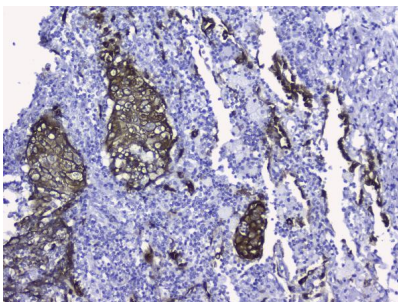


Figure 7. IHC analysis of KRT19 using anti-KRT19 antibody (PB9715).

KRT19 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 2ug/ml rabbit anti-KRT19 Antibody (PB9715) 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.

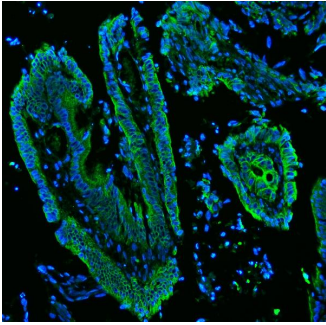


Figure 8. IF analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PB9715). Cytokeratin 19 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL rabbit anti-Cytokeratin 19 Antibody (PB9715) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

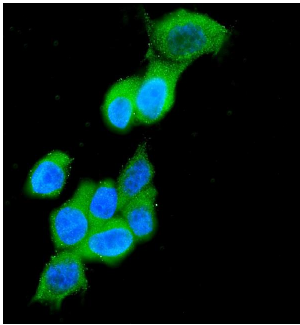


Figure 9. IF analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PB9715). Cytokeratin 19 was detected in immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Cytokeratin 19 Antibody (PB9715) 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.

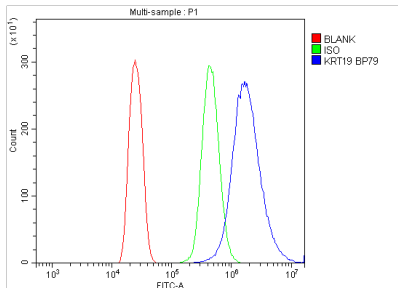


Figure 10. Flow Cytometry analysis of MCF-7 cells using anti-Cytokeratin 19 antibody (PB9715). Overlay histogram showing MCF-7 cells stained with PB9715 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Cytokeratin 19 Antibody (PB9715, 1ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

13 Publications Citing This Product

1. PubMed ID: PMID:31966704, MicroRNA-421 mediates immunosensitivity in late-stage human liver cancer
2. PubMed ID: 10.3748/wjg.v11.i22.3426, Adult islets cultured in collagen gel transdifferentiate into duct-like cells
3. PubMed ID: 10.1016/j.lfs.2020.118354, Matrine promotes hepatic oval cells differentiation into hepatocytes and alleviates liver injury by suppression of Notch signalling pathway

Visit [bosterbio.com/anti-cytokeratin-19-picoband-trade-antibody-pb9715-boster.html](https://www.bosterbio.com/anti-cytokeratin-19-picoband-trade-antibody-pb9715-boster.html) to see all 13 publications.

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