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Anti-Cytokeratin 18 KRT18 Antibody Picoband®(monoclonal, 7I6)

Catalog Number: M01357-4

About KRT18

Keratin 18, mapped to 12q13.13, is a type I cytokeratin. It is, together with its filament partner keratin 8, perhaps the most commonly found products of the intermediate filament gene family. They are expressed in single layer epithelial tissues of the body. Mutations in this gene have been linked to cryptogenic cirrhosis. Two transcript variants encoding the same protein have been found for this gene.

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Overview

Product Name	Anti-Cytokeratin 18 KRT18 Antibody Picoband®(monoclonal, 7I6)
Reactive Species	Human
Description	Boster Bio Anti-Cytokeratin 18 KRT18 Antibody Picoband® (monoclonal, 7I6) catalog # M01357-4. Tested in Flow Cytometry, IF, IHC, IHC-F, ICC, WB applications. This antibody reacts with Human. 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	Flow Cytometry, IF, IHC, IHC-F, ICC, WB
Clonality	Monoclonal 7I6
Formulation	Each vial contains 4mg Trehalose, 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	Mouse
Uniprot ID	P05783

Technical Details

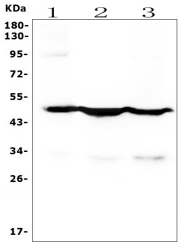
Immunogen	E.coli-derived human Cytokeratin 18 recombinant protein (Position: E204-H430). Human Cytokeratin 18 shares 87.7% and 85.9% amino acid (aa) sequence identity with mouse and rat Cytokeratin 18, respectively.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western

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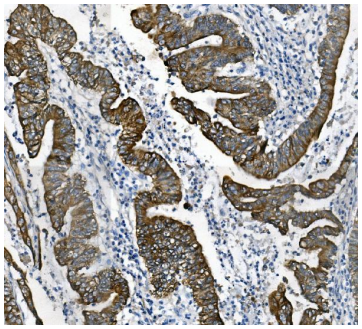
	blot, and HRP Conjugated anti- Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P), IHC(F) and ICC.
Cross Reactivity	No cross-reactivity with other proteins.
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human Note: For flow cytometry (FCM), suitable for fixed cells only. Not suitable for FACS or surface flow cytometry using live cells.

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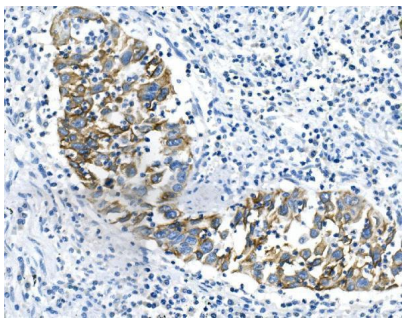
Anti-Cytokeratin 18 KRT18 Antibody Picoband®(monoclonal, 7I6) (M01357-4) Images



Western blot analysis of Cytokeratin 18 using anti-Cytokeratin 18 antibody (M01357-4). 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: human placenta tissue lysates, Lane 2: human Caco-2 whole cell lysates, Lane 3: human A549 whole cell lysates. 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 hours at RT. The membrane was incubated with mouse anti-Cytokeratin 18 antigen affinity purified monoclonal antibody (Catalog # M01357-4) 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for Cytokeratin 18 at approximately 48KD. The expected band size for Cytokeratin 18 is at 48KD.



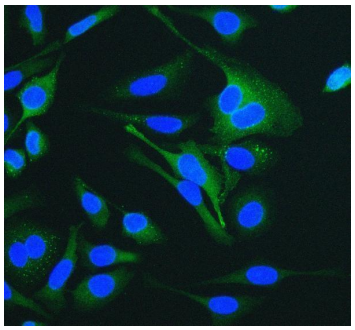
IHC analysis of Cytokeratin 18 using anti-Cytokeratin 18 antibody (M01357-4). Cytokeratin 18 was detected in paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Cytokeratin 18 Antibody (M01357-4) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.



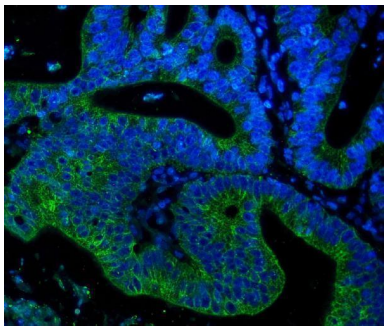
IHC analysis of Cytokeratin 18 using anti-Cytokeratin 18 antibody (M01357-4). Cytokeratin 18 was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml mouse anti-Cytokeratin 18 Antibody (M01357-4) overnight at 4°C. Biotinylated goat anti-mouse 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 # SA1021) with DAB as the chromogen.

IF analysis of Cytokeratin 18 using anti-Cytokeratin 18 antibody (M01357-4). Cytokeratin 18 was detected in immunocytochemical section of Hela cells. Enzyme antigen

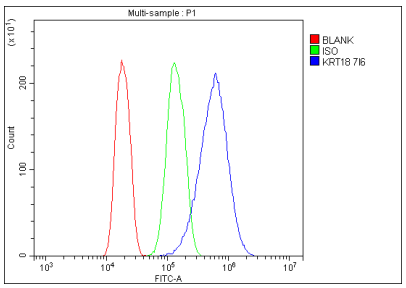
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retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL mouse anti-Cytokeratin 18 Antibody (M01357-4) overnight at 4°C. DyLight®488 Conjugated Goat Anti-mouse IgG (BA1126) 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.



IF analysis of Cytokeratin 18 using anti-Cytokeratin 18 antibody (M01357-4). Cytokeratin 18 was detected in paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/mL mouse anti-Cytokeratin 18 Antibody (M01357-4) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Mouse IgG (BA1126) 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.



Flow Cytometry analysis of A431 cells using anti-Cytokeratin 18 antibody (M01357-4). Overlay histogram showing A431 cells stained with M01357-4 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Cytokeratin 18 Antibody (M01357-4, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

2 Publications Citing This Product

1. PubMed ID: 31156617, Wei Z,Wang J,Wang Y,Wang C,Liu X,Han Z,Fu Y,Yang Z.Effects of Neutrophil Extracellular Traps on Bovine Mammary Epithelial Cells in vitro.Front Immunol.2019 May 17;10:1003.doi:10.3389/fimmu.2019.01003.PMID:31156617;PMCID:PMC6533846.

2. PubMed ID: 33069797, Shi R,Liu L,Wang F,He Y,Niu Y,Wang C,Zhang X,Zhang X,Zhang H,Chen M,Wang Y.Downregulation of cytokeratin 18 induces cellular partial EMT and stemness through increasing EpCAM expression in breast cancer.Cell Signal.2020 Dec;76:109810.doi:10.1016/j.cellsig

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