

Anti-Cytokeratin Peptide 18 KRT18 Antibody (Monoclonal, CY-90)

Catalog Number: MA1026

About KRT18

Intermediate filaments (IFs) are a structurally related family of cellular proteins that appear to be intimately involved with the cytoskeleton. Human keratin 18 (KRT18) and the homologous mouse Endo B are type I IF protein subunits whose expression is restricted in adults to a variety of simple epithelial tissues. The KRT18 gene is 3,791 bp long and the keratin 18 protein is coded for by 7 exons. The K18 gene is 3791 bp in length and the K18 protein is coded for by seven exons. By Southern blotting using the genomic DNA PCR product, the gene for keratin 18 is assigned to chromosome 12. Mutation of human keratin 18 in association with cryptogenic cirrhosis.

Overview

Product Name	Anti-Cytokeratin Peptide 18 KRT18 Antibody (Monoclonal, CY-90)
Reactive Species	Human
Description	Boster Bio Anti-Cytokeratin Peptide 18 KRT18 Antibody (Monoclonal, CY-90) catalog # MA1026. Tested in IF, IHC, WB applications. This antibody reacts with Human.
Application	IF, IHC, WB
Clonality	Monoclonal CY-90
Formulation	Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN ₃ as preservative.
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	Q5BJY9

Technical Details

Immunogen	The human epidermal carcinoma A-431 and MCF-7 human breast cancer cell lines.
Predicted Reactive Species	Monkey
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P) and IHC(F).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Mouse IgG1
Form	Lyophilized
Concentration	Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml.

Purification	Ascites
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, 0.5-1ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 1-2ug/ml, Human, By Heat Immunohistochemistry (Frozen Section), 0.5-2ug/ml, Human, - Immunofluorescence, 5 ug/ml, Human

Anti-Cytokeratin Peptide 18 KRT18 Antibody (Monoclonal, CY-90) (MA1026) Images

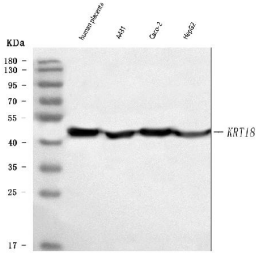


Figure 1. Western blot analysis of Cytokeratin Peptide 18 using anti-Cytokeratin Peptide 18 antibody (MA1026). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human placenta tissue lysates,
Lane 2: human A431 whole cell lysates,
Lane 3: human CACO-2 whole cell lysates,
Lane 4: human HepG2 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 mouse anti-Cytokeratin Peptide 18 antigen affinity purified monoclonal antibody (Catalog # MA1026) at 1 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 Peptide 18 at approximately 48 kDa. The expected band size for Cytokeratin Peptide 18 is at 48 kDa.

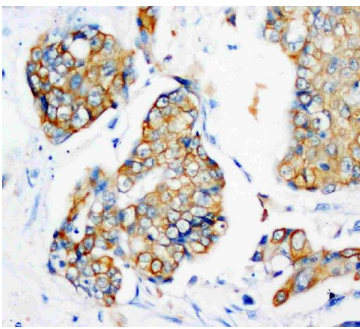


Figure 2. IHC analysis of Cytokeratin Peptide 18 using anti-Cytokeratin Peptide 18 antibody (MA1026). Cytokeratin Peptide 18 was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml mouse anti-Cytokeratin Peptide 18 Antibody (MA1026) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

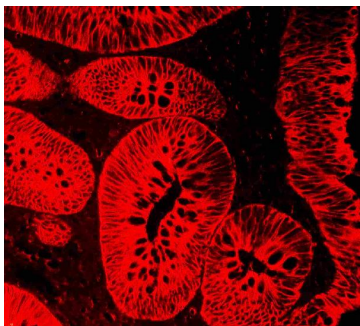


Figure 3. IF analysis of Cytokeratin Peptide 18 using anti-Cytokeratin Peptide 18 antibody (MA1026). Cytokeratin Peptide 18 was detected in a paraffin-embedded section of human rectal cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/mL mouse anti-Cytokeratin Peptide 18 Antibody (MA1026) overnight at 4°C. Biotin conjugated goat anti-mouse IgG (BA1001) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Cy3 Conjugated Avidin (BA1037). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the

label used.

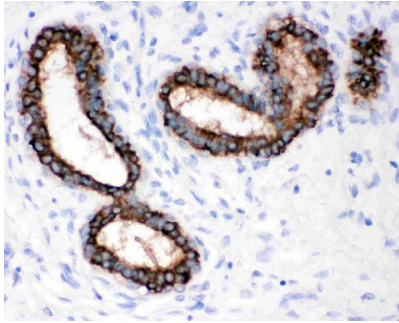


Figure 4. IHC analysis of Cytokeratin Peptide 18 using anti-Cytokeratin Peptide 18 antibody (MA1026). Cytokeratin Peptide 18 was detected in a paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml mouse anti-Cytokeratin Peptide 18 Antibody (MA1026) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

9 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: 22144492, Small intestinal intraepithelial lymphocytes expressing CD8 and T cell receptor $\alpha\beta$ are involved in bacterial clearance during Salmonella enterica serovar Typhimurium Δ 2026
3. PubMed ID: 28678802, miR-182 aids in receptive endometrium development in dairy goats by down-regulating PTN expression

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