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Anti-Cytokeratin 19/KRT19 Antibody

Catalog Number: PA1335

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
Reactive Species	Human
Description	Boster Bio Anti-Cytokeratin 19/KRT19 Antibody catalog # PA1335. Tested in IHC, ICC, WB applications. This antibody reacts with Human.
Application	IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 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	P08727

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Cytokeratin 19.
Predicted Reactive Species	Monkey
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
Form	Lyophilized

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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. 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: Immunocytochemistry , 0.5-1ug/ml, Human, - Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human, - Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, By Heat Western blot, 0.1-0.5ug/ml, Human

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Anti-Cytokeratin 19/KRT19 Antibody (PA1335) Images

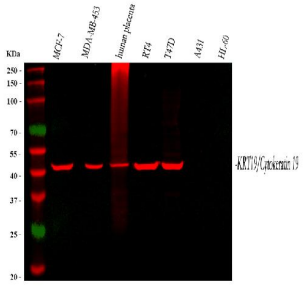

Figure 1. Western blot analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PA1335).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human MCF-7 whole cell lysates,
Lane 2: human MDA-MB-453 whole cell lysates,
Lane 3: human placenta tissue lysates,
Lane 4: human RT4 whole cell lysates,
Lane 5: human T-47D whole cell lysates,
Lane 6: human A431 whole cell lysates,
Lane 7: human HL-60 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 # PA1335) 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-DyLight 647 Conjugated secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. A specific band was detected for Cytokeratin 19 at approximately 44 kDa. The expected band size for Cytokeratin 19 is at 44 kDa.

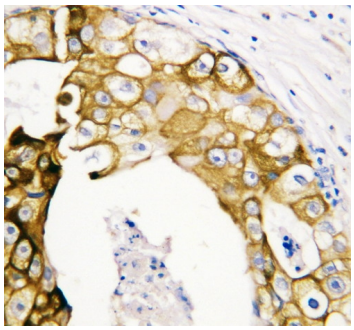

Figure 2. IHC analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PA1335).
Cytokeratin 19 was detected in a paraffin-embedded section of Human Oesophagus Squama Cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 ug/ml rabbit anti-Cytokeratin 19 Antibody (PA1335) 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.

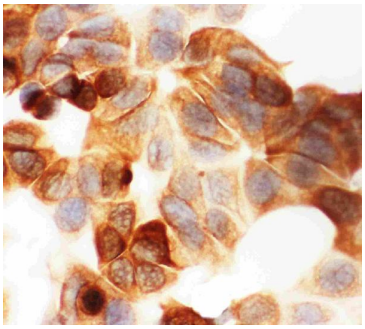

Figure 3. ICC analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PA1335).
Cytokeratin 19 was detected in an immunocytochemical section of MCF-7 cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1 ug/ml rabbit anti-Cytokeratin 19 Antibody (PA1335) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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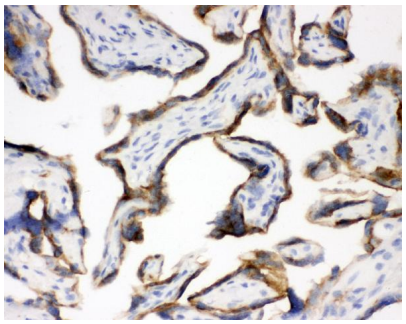

Figure 4. IHC analysis of Cytokeratin 19 using anti-Cytokeratin 19 antibody (PA1335).
Cytokeratin 19 was detected in frozen section of human placenta tissues. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Cytokeratin 19 Antibody (PA1335) 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.

6 Publications Citing This Product

1. PubMed ID: 32176389, Wu T,Tang C,Chen Y,Yong X,Liu Z,Jiang L,Zeng Q,Tao R.Regulatory effect of 17beta-estradiol on the expression of beta-defensin-2 and proinflammatory cytokines in human oral epithelial cells.J Oral Pathol Med.2020 Apr;49(4):365-372.doi:10.1111/jop.13016.Epub 2020

2. PubMed ID: 22211239, Yin D, Tian L, Ye Y, Li K, Wang J, Cheng P, Chen A, Guo F, Huang H. Int J Mol Med. 2012 Apr;29(4):587-92. Doi: 10.3892/Ijmm.2011.871. Epub 2011 Dec 29. Nanog And ??-Catenin: A New Convergence Point In Epsc Proliferation And Differentiation.

3. PubMed ID: 28656299, Quan, J., Du, Q., Hou, Y., Wang, Z., & Zhang, J. (2017). Utilization of E-cadherin by monocytes from tumour cells plays key roles in the progression of bone invasion by oral squamous cell carcinoma. Oncology Reports, 38(2), 850-858. Advance online...

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