BOSTER BIOLOGICAL TECHNOLOGY
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Anti-Krueppel-like factor 4 KLF4 Antibody Picoband®

Catalog Number: PA2211

About KLF4

Kruppel-like factor 4, also known as EZF or GKLF, is a protein that in humans is encoded by the KLF4 gene. This gene is mapped to 9q31.2. KLF4 gene encodes a member of the Kruppel family of transcription factors. This gene plays an important role in maintaining embryonic stem cells, and in preventing their differentiation. It is required for establishing the barrier function of the skin and for postnatal maturation and maintenance of the ocular surface. This gene involved in the differentiation of epithelial cells and may also function in skeletal and kidney development.

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Overview

Product Name	Anti-Krueppel-like factor 4 KLF4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Krueppel-like factor 4 KLF4 Antibody catalog # PA2211. Tested in WB, IHC applications. This antibody reacts with Human, Mouse, Rat. 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	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.
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	O43474

Technical Details

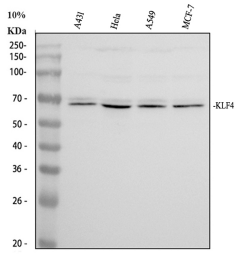
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human KLF4, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western

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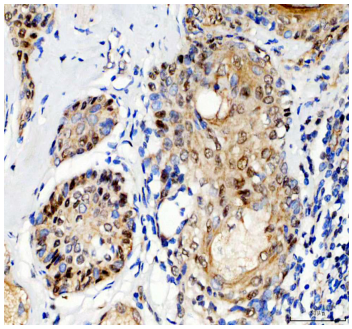
	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5ug/ml, Human, Mouse, Rat

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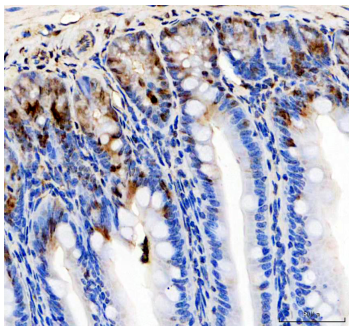
Anti-Krueppel-like factor 4 KLF4 Antibody Picoband® (PA2211) Images



Western blot analysis of KLF4 using anti-KLF4 antibody (PA2211). Electrophoresis was performed on a 10% SDS-PAGE gel at 80V (Stacking gel) / 120V (Resolving gel) for 2 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human A549 whole cell lysates, Lane 4: human MCF-7 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-KLF4 antigen affinity purified polyclonal antibody (PA2211) 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 (Catalog # BA1054) at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an ECL Plus Western Blotting Substrate (Catalog # AR1196-200) with Tanon 5200 system. A specific band was detected for KLF4 at approximately 55-65 kDa. The expected band size for KLF4 is at 55 kDa.



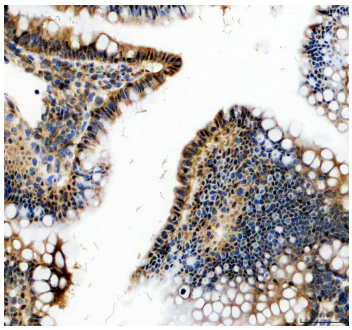
IHC analysis of KLF4 using anti-KLF4 antibody (PA2211). KLF4 was detected in a paraffin-embedded section of human skin tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF4 Antibody (PA2211) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of KLF4 using anti-KLF4 antibody (PA2211). KLF4 was detected in a paraffin-embedded section of mouse colon 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 2 ug/ml rabbit anti-KLF4 Antibody (PA2211) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

IHC analysis of KLF4 using anti-KLF4 antibody (PA2211). KLF4 was detected in a paraffin-embedded section of rat colon 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

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section was then incubated with 2 ug/ml rabbit anti-KLF4 Antibody (PA2211) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

4 Publications Citing This Product

1. PubMed ID: 31933825, Deng S,Zhang Y,Wang Y,Lu X,Jiang Q.MicroRNA-92 regulates vascular smooth muscle cell function by targeting KLF4 during vascular restenosis and injury.Int J Clin Exp Pathol.2019 Dec 1;12(12):4253-4262.PMID:31933825;PMCID:PMC6949870.

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

3. PubMed ID: 26938105, CHIR99021 enhances Klf4 Expression through ?-Catenin Signaling and miR-7a Regulation in J1 Mouse Embryonic Stem Cells

Visit bosterbio.com/anti-klf4-antibody-pa2211-boster.html to see all 4 publications.

Anti-Krueppel-like factor 4 KLF4 Antibody

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