

Anti-KLF4 Antibody Picoband®

Catalog Number: A00120

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.

Overview

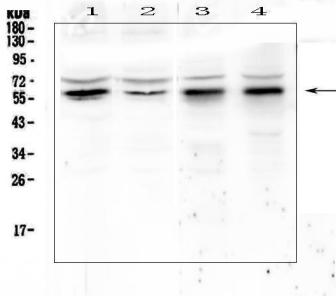
Product Name	Anti-KLF4 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KLF4 Antibody Picoband® catalog # A00120. Tested in IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior 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 4mg Trehalose, 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	O43474

Technical Details

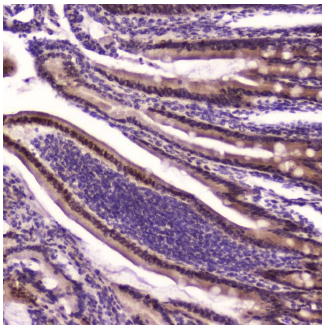
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human KLF4, which shares 91.7% amino acid (aa) sequence identity with both mouse and rat KLF4.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
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 Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml

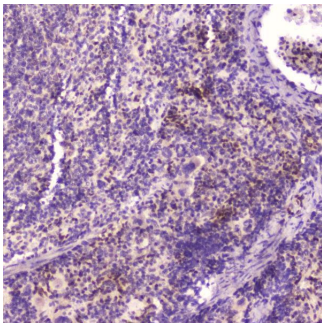
Anti-KLF4 Antibody Picoband® (A00120) Images



Western blot analysis of KLF4 using anti-KLF4 antibody (A00120). 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 Hela whole cell lysates, Lane 2: human COLO-320 whole cell lysates, Lane 3: rat stomach tissue lysates, Lane 4: rat testis tissue 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 hour at RT. The membrane was incubated with rabbit anti-KLF4 antigen affinity purified polyclonal antibody (Catalog # A00120) 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 1:10000 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 KLF4 at approximately 60KD. The expected band size for KLF4 is at 55KD.



IHC analysis of KLF4 using anti-KLF4 antibody (A00120).KLF4 was detected in paraffin-embedded section of rat small intestine tissue. 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-KLF4 Antibody (A00120) 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.



IHC analysis of KLF4 using anti-KLF4 antibody (A00120).KLF4 was detected in paraffin-embedded section of mouse spleen tissue . 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-KLF4 Antibody (A00120) 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.

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 β -Catenin Signaling and miR-7a Regulation in J1 Mouse Embryonic Stem Cells

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Anti-KLF4 Antibody

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