

Anti-KLF5 Antibody Picoband®

Catalog Number: A00727-1

About KLF5

KLF5 (Krueppel-like factor 5) is a protein that in humans is encoded by the KLF5 gene. It is also known as BASIC TRANSCRIPTION ELEMENT-BINDING PROTEIN 2 or BTEB2. This gene encodes a member of the Kruppel-like factor subfamily of zinc finger proteins. Suske et al.(2005) stated that the human KLF5 gene maps to chromosome 13q21.33, and the mouse Klf5 gene to chromosome 14E2.1. Sogawa et al.(1993) isolated a cDNA encoding BTEB2. The predicted 219-amino acid protein contains 3 consecutive zinc finger motifs near the C terminus. The zinc finger domains were 59% and 64% identical to those of Sp1(189906) and BTEB1, respectively. Both BTEB2 and Sp1 have a short basic region preceding the zinc finger motifs that may play an auxiliary role in DNA binding. The N-terminal region of BTEB2 is proline rich. Recombinant BTEB2 protein and Sp1 showed very similar DNA-binding specificity in vitro. When expressed in mammalian cells, BTEB2 activated the transcription of a reporter gene fused to a GC box-containing promoter. Sogawa et al.(1993) also identified the rat BTEB2 homolog. Northern blot analysis of rat tissues revealed that BTEB2 is expressed only in the testis and placenta.

Overview

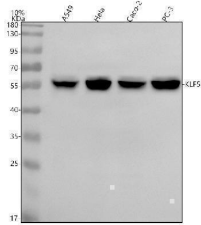
Product Name	Anti-KLF5 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KLF5 Antibody Picoband® catalog # A00727-1. Tested in WB, IHC, IF, ICC/IF, IP, ELISA applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody 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	ELISA, IP, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg stabilizing protein and 50% glycerol *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
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	Q13887

Technical Details

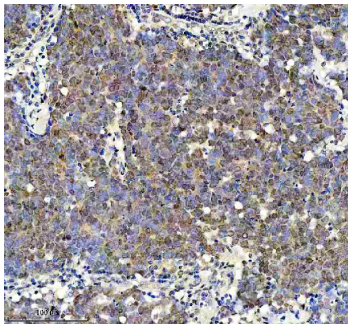
Immunogen	E.coli-derived human KLF5 recombinant protein (Position: M1-N353).
Recommended Detection Systems	Boster recommends ECL Plus Western Blotting Substrate (Catalog # AR1196-200) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
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, 0.25-0.5 ug/ml, Human Immunohistochemistry (Paraffin-embedded Section), 2-5 ug/ml, Human, Mouse, Rat Immunocytochemistry/Immunofluorescence, 5 ug/ml, Human Immunofluorescence, 5 ug/ml, Human Immunoprecipitation, 0.5-2 ug/ml, Human ELISA, 0.1-0.5 ug/ml, -

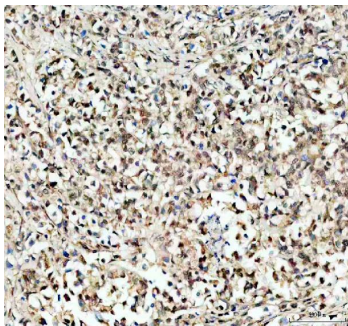
Anti-KLF5 Antibody Picoband® (A00727-1) Images



Western blot analysis of KLF5 using anti-KLF5 antibody (A00727-1). 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 A549 whole cell lysates, Lane 2: human Hela whole cell lysates, Lane 3: human CACO-2 whole cell lysates, Lane 4: human PC-3 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-KLF5 antigen affinity purified polyclonal antibody (A00727-1) 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 KLF5 at approximately 55 kDa. The expected band size for KLF5 is at 51 kDa.

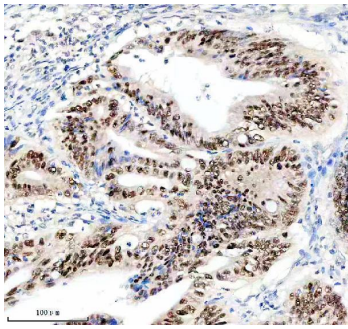


IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of human skin cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) 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.

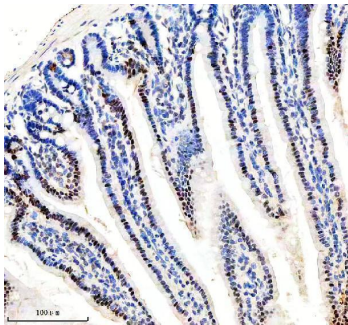


IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of human stomach cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) 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.

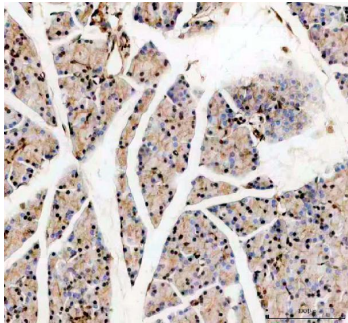
IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval



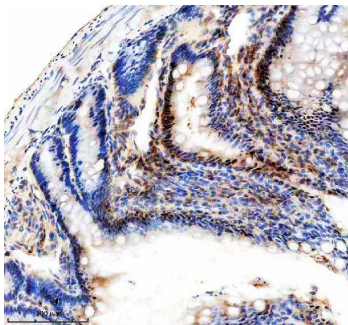
solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of mouse small intestine 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-KLF5 Antibody (A00727-1) 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.

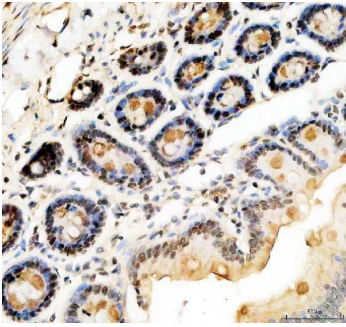


IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of rat pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) 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.

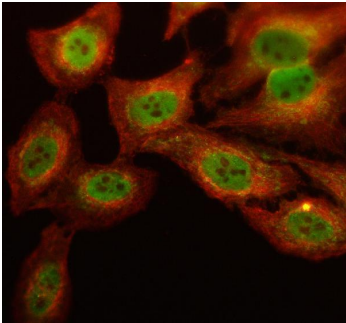


IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) 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.

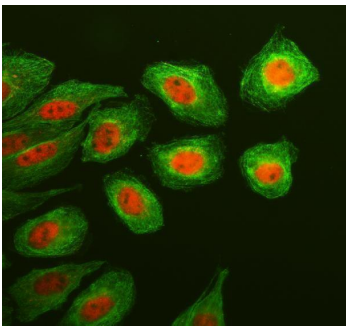
IHC analysis of KLF5 using anti-KLF5 antibody (A00727-1). KLF5 was detected in a paraffin-embedded section of rat small intestine tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat



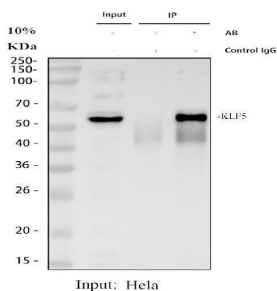
serum. The tissue section was then incubated with 2 ug/ml rabbit anti-KLF5 Antibody (A00727-1) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.



IF analysis of KLF5 using anti-KLF5 antibody (A00727-1) and anti-Alpha Tubulin antibody (M03989-3). KLF5 was detected in an immunocytochemical section of HeLa 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 5 ug/mL rabbit anti-KLF5 Antibody (A00727-1) and mouse anti-Alpha Tubulin antibody (M03989-3) overnight at 4°C. Fluoro488 Conjugated Goat Anti-Rabbit IgG (BA1127) and Cy3 Conjugated Goat Anti-Mouse IgG (BA1031) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



IF analysis of KLF5 using anti-KLF5 antibody (A00727-1) and anti-Alpha Tubulin antibody (M03989-3). KLF5 was detected in an immunocytochemical section of SiHa 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 5 ug/mL rabbit anti-KLF5 Antibody (A00727-1) and mouse anti-Alpha Tubulin antibody (M03989-3) overnight at 4°C. Cy3 Conjugated Goat Anti-Rabbit IgG (BA1032) and Fluoro488 Conjugated Goat Anti-Mouse IgG (BA1126) were used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37°C. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Immunoprecipitating (IP) KLF5 in HeLa whole cell lysate. Western blot analysis of KLF5 using anti-KLF5 antibody (A00727-1); Lane 1: HeLa whole cell lysates (30ug); Lane 2: Rabbit control IgG instead of anti-KLF5 antibody in HeLa whole cell lysate; Lane 3: anti-KLF5 antibody (2ug) + HeLa whole cell lysate (500ug). After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-KLF5 antigen affinity purified polyclonal antibody (A00727-1) at a dilution of 0.5 ug/mL and probed with a goat anti-rabbit IgG-HRP secondary antibody (Light Chain). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1196-200). A specific band was detected for KLF5 at approximately 55 kDa. The expected band size for KLF5 is at 51 kDa.

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Anti-KLF5 Antibody

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