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Anti-Kallikrein 1/KLK1 Antibody Picoband®

Catalog Number: PA1709

About Klk1

KLK1 (KALLIKREIN 1), also called KLKR, is a protein that in humans is encoded by the KLK1 gene. KLK1 is a member of the peptidase S1 family. KLK1 is a serine protease that generates Lys-bradykinin by specific proteolysis of kininogen-1. The KLK1 gene is one of the fifteen kallikrein subfamily members located in a cluster on chromosome 19 and its exact cytogenetic location is 19q13.33. The KLK1 gene contains 5 coding exons. And KLK1 is the most centromeric gene in the cluster. Mice lacking tissue kallikrein are unable to generate significant levels of kinins in most tissues and develop cardiovascular abnormalities early in adulthood despite normal blood pressure. The protein is functionally conserved in its capacity to release the vasoactive peptide, Lys-bradykinin, from low molecular weight kininogen.

Overview

Product Name	Anti-Kallikrein 1/KLK1 Antibody Picoband®
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-Kallikrein 1/KLK1 Antibody catalog # PA1709. Tested in IHC, WB applications. This antibody reacts with 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 antibody formulated with stabilizing components, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg Thimerosal, 0.05mg NaN3. *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	P15947

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of mouse Kallikrein 1.
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).

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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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse Western blot, 0.1-0.5ug/ml, Mouse, Rat

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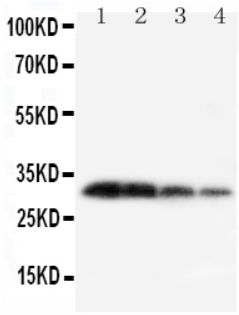
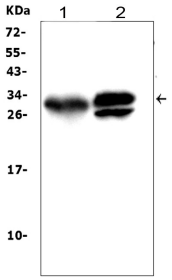
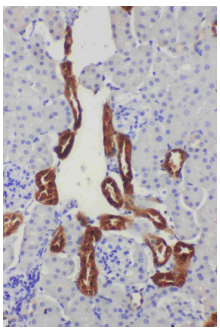
Anti-Kallikrein 1/KLK1 Antibody Picoband® (PA1709) Images



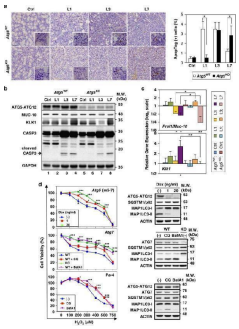
Anti-Kallikrein 1 antibody, PA1709, Western blottingLane 1: Recombinant Mouse KLK1 Protein 10ngLane 2: Recombinant Mouse KLK1 Protein 5ngLane 3: Recombinant Mouse KLK1 Protein 2.5ngLane 4: Recombinant Mouse KLK1 Protein 1.25ng



Western blot analysis of KLK1 using anti-KLK1 antibody (PA1709). 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: rat pancreas tissue lysates, Lane 2: mouse pancreas 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-KLK1 antigen affinity purified polyclonal antibody (Catalog # PA1709) 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 KLK1 at approximately 29KD. The expected band size for KLK1 is at 29KD.



Anti-Kallikrein 1 antibody, PA1709, IHC(P)IHC(P): Mouse Kidney Tissue



Acinar cell apoptosis is delayed in post-ligated SMGs of ATG5-deficient mice. (a) ATG5 status impinges upon duct ligation-triggered acinar apoptosis. Apoptosis by ApopTag Peroxidase (brown nuclear staining) was visualized using an In situ Apoptosis Detection Kit (left panel). Peak apoptosis was detected in L1 and L3 SMGs of Atg5 WT mice, whereas the strongest ApopTag signals were detected in L3 and L7 SMGs of Atg5 KO mice. Magnification: × 100, and enlarged view (inset): × 400. Bar: 100 u m. Percent ApopTag-positive cells quantified by dividing the total ApopTag-

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positive cells by total number of cells examined from 10 randomly chosen fields are shown (right panel). Student's t -test was employed to determine statistically significant differences in percentage of ApopTag-positive cells between Atg5 WT and Atg5 KO groups. Results are shown as mean±S.D.; * P

4 Publications Citing This Product

1. PubMed ID: 10.1038/cddis.2014.428, Dynamic involvement of ATG5 in cellular stress responses

2. PubMed ID: , Tracing tumorigenesis in a solid tumor model at single-cell resolution

3. PubMed ID: 28977871, The Goblet Cell Protein Clca1 (Alias mClca3 or Gob-5) Is Not Required for Intestinal Mucus Synthesis, Structure and Barrier Function in Naive or DSS-Challenged Mice

Visit bosterbio.com/anti-kallikrein-1-antibody-pa1709-boster.html to see all 4 publications.

Anti-Kallikrein 1/KLK1 Antibody

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