

Anti-KLKB1 Antibody

Catalog Number: A04995-2

About KLKB1

Human Plasma Kallikrein, a serine protease also named as KLKB1, KLK3, PPK or Kininogenin, is synthesized in the liver and circulates in the plasma by binding to high molecular weight (HMW) kininogen or as a free zymogen. It cleaves HMW kininogen, its major physiological substrate, to release the potent vasodilator peptide bradykinin. It is also able to cleave a number of inactive precursor proteins to generate active products, such as plasminogen and prourokinase. Thus, it plays an important role in blood pressure regulation, fibrinolysis, and neutrophil activation. KLKB1 precursor contains a signal peptide (residues 1 to 19) and a pro form sequence (residues 20 to 638). Upon activation, the pro form is converted to a heavy chain and a light chain, which is linked by disulfide bonds and the latter contains the catalytic domain (PMID: 3521732). KLKB1 is a ~70 kDa protein and can be detected as 80-86 kDa (glycosylation form), 52 kDa (heavy chain), 36-44 kDa (light chain) and 18 kDa (often detected in cancer) (PMID: 17963278, 3521732). KLKB1 may be a potential candidate serum biomarker of cancer. The antigen of this antibody just cover the heavy chain of KLKB1, so this antibody cannot recognize the light chain.

Overview

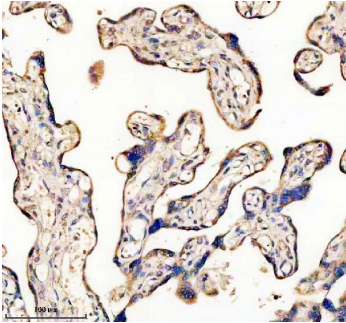
Product Name	Anti-KLKB1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-KLKB1 Antibody catalog # A04995-2. Tested in WB, IHC, ELISA applications. This antibody reacts with Human, Mouse, Rat.
Application	ELISA, IHC, WB
Clonality	Polyclonal
Formulation	500 ug/ml antibody with PBS, 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	12 months from date of receipt -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.
Host	Rabbit
Uniprot ID	P03952

Technical Details

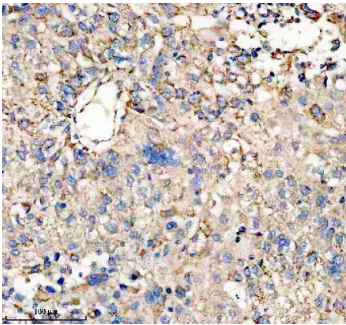
Immunogen	E.coli-derived human KLKB1 recombinant protein (Position: S67-C345).
Form	Liquid
Concentration	500 ug/ml

Purification	Immunogen affinity purified.
Suggested Dilutions	Western blot, 1:500-2000 Immunohistochemistry, 1:50-400 ELISA, 1:100-1000

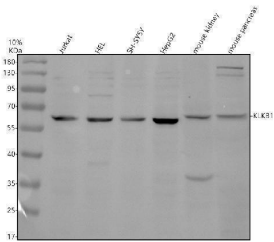
Anti-KLKB1 Antibody (A04995-2) Images



IHC analysis of KLKB1 using anti-KLKB1 antibody (A04995-2). KLKB1 was detected in a paraffin-embedded section of human placenta 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 1:200 rabbit anti-KLKB1 Antibody (A04995-2) 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.



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Western blot analysis of KLKB1 using anti-KLKB1 antibody (A04995-2). 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 Jurkat whole cell lysates, Lane 2: human HEL whole cell lysates, Lane 3: human SH-SY5Y whole cell lysates, Lane 4: human HepG2 whole cell lysates, Lane 5: mouse kidney tissue lysates, Lane 6: mouse pancreas tissue 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-KLKB1 antigen affinity purified polyclonal antibody (A04995-2) at 1:1000 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 1:5000 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 KLKB1 at approximately 63 kDa. The expected band size for KLKB1 is at 71 kDa.

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Anti-KLKB1 Antibody

For Research Use Only. Not for use in diagnostic procedures.