

# KLKB1 Polyclonal antibody

Catalog Number: 27991-1-AP

## Basic Information

<b>Catalog Number:</b> 27991-1-AP	<b>GenBank Accession Number:</b> NM_000892	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul, Concentration: 450 µg/ml by Nanodrop and 333 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 3818	<b>Recommended Dilutions:</b> WB 1:500-1:2000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> kallikrein B, plasma (Fletcher factor)	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 71 kDa	
<b>Immunogen Catalog Number:</b> AG27491	<b>Observed MW:</b> 52-70 kDa	

## Applications

### Tested Applications:

IHC, WB, ELISA

### Species Specificity:

Human, Mouse, Rat

**Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (\*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0**

### Positive Controls:

WB: mouse kidney tissue, mouse pancreas tissue, rat kidney tissue, rat pancreas tissue

IHC: human liver cancer tissue,

## Background Information

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.

## Storage

### Storage:

Store at -20°C. Stable for one year after shipment.

### Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol pH 7.3.

Aliquoting is unnecessary for -20°C storage

\*\*\* 20ul sizes contain 0.1% BSA

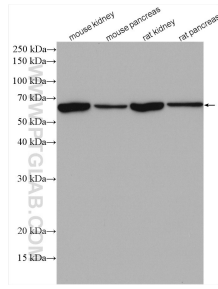
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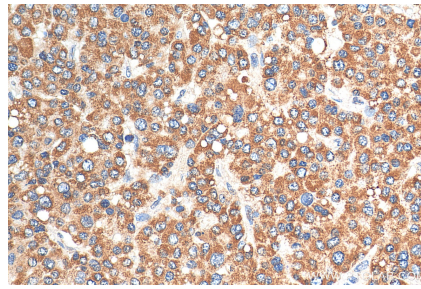
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## Selected Validation Data



Various lysates were subjected to SDS PAGE followed by western blot with 27991-1-AP (KLKB1 antibody) at dilution of 1:1000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human liver cancer tissue slide using 27991-1-AP (KLKB1 antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).