

Anti-PC1/3/PCSK1 Antibody Picoband®

Catalog Number: PA2084

About PCSK1

PCSK1 (Proprotein Convertase, Subtilisin/Kexin-Type, 1), also known as PC1 or NEC1, is an enzyme that in humans is encoded by the PCSK1 gene. Proprotein convertase-1 is a neuroendocrine convertase that belongs to a family of subtilisin-like serine endoproteases that process large precursor proteins into mature bioactive products. By in situ hybridization, Seidah et al. (1991) mapped the NEC1 gene to human chromosome 5q15-q21 and mouse chromosome 13. Ohagi et al. (1996) noted that PC1 initiates the sequential processing of proinsulin to insulin by cleaving the proinsulin molecule on the C-terminal side of the dibasic peptide, arg31-arg32, joining the B-chain and C-peptide. By observing the phenotypic features in patients with PC1 mutations, Jackson et al. (2003) concluded that human intestinal absorptive function is dependent on PC1 activity.

Overview

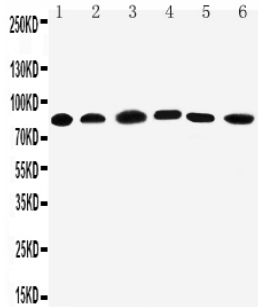
Product Name	Anti-PC1/3/PCSK1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-PC1/3/PCSK1 Antibody catalog # PA2084. Tested in IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees 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	IF, 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	P29120

Technical Details

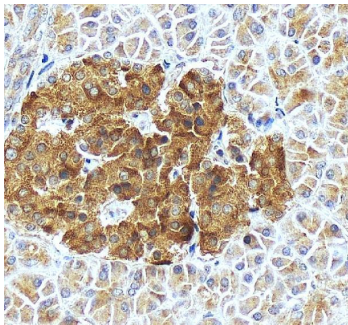
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human PC1/3, identical to the related mouse and rat sequences.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG 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, Human, Mouse, Rat, Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat Immunofluorescence, 2ug/ml, Human

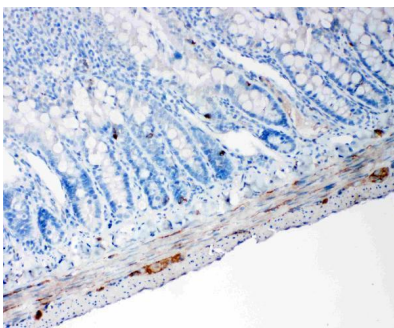
Anti-PC1/3/PCSK1 Antibody Picoband® (PA2084) Images



Western blot analysis of PC1/3/PCSK1 using anti-PC1/3/PCSK1 antibody (PA2084). 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 Liver Tissue Lysate Lane 2: Rat Thymus Tissue Lysate Lane 3: A549 Cell Lysate Lane 4: HELA Cell Lysate Lane 5: COLO320 Cell Lysate Lane 6: PANC Cell Lysate 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-PC1/3/PCSK1 antigen affinity purified polyclonal antibody (Catalog # PA2084) 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 PC1/3/PCSK1 at approximately 84KD. The expected band size for PC1/3/PCSK1 is at 84KD.

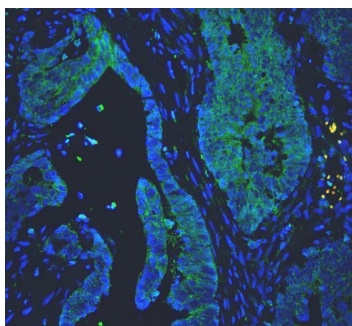


IHC analysis of PCSK1 using anti-PCSK1 antibody (PA2084). PCSK1 was detected in a paraffin-embedded section of human pancreas tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-PCSK1 Antibody (PA2084) 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 PC1/3/PCSK1 using anti-PC1/3/PCSK1 antibody (PA2084). PC1/3/PCSK1 was detected in paraffin-embedded section of rat intestine tissues. 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 1ug/ml rabbit anti-PC1/3/PCSK1 Antibody (PA2084) 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.

IF analysis of PC1/3/PCSK1 using anti-PC1/3/PCSK1 antibody (PA2084) PC1/3/PCSK1 was detected in paraffin-embedded section of human colon cancer tissues. 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 1ug/mL rabbit anti-PC1/3/PCSK1 Antibody (PA2084) overnight at 4°C. Biotin conjugated goat anti-rabbit IgG (BA1003) was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using DyLight®488 Conjugated Avidin (BA1128). The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.

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Anti-PC1/3/PCSK1 Antibody

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