

Anti-alpha 1 Antitrypsin/SERPINA1 Antibody Picoband™

Catalog Number: PB9354

About Serpina1

SERPINA1 is also known as PI, A1A or AAT. The protein encoded by this gene is secreted and is a serine protease inhibitor whose targets include elastase, plasmin, thrombin, trypsin, chymotrypsin, and plasminogen activator. Defects in this gene can cause emphysema or liver disease. Several transcript variants encoding the same protein have been found for this gene.

Overview

Product Name	Anti-alpha 1 Antitrypsin/SERPINA1 Antibody Picoband™
Reactive Species	Mouse, Rat
Description	Boster Bio Anti-alpha 1 Antitrypsin/SERPINA1 Antibody Picoband™ catalog # PB9354. Tested in IHC, WB applications. This antibody reacts with Mouse, Rat.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	P17475

Technical Details

Immunogen	E.coli-derived rat SERPINA1 recombinant protein (Position: K211-R411). Rat SERPINA1 shares 66% amino acid (aa) sequence identity with human SERPINA1.
Predicted Reactive Species	Hamster
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

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Mouse, Rat, By Heat

Western blot, 0.1-0.5ug/ml, Mouse, Rat

Anti-alpha 1 Antitrypsin/SERPINA1 Antibody Picoband™ (PB9354) Images

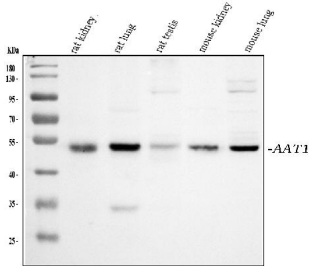


Figure 1. Western blot analysis of SERPINA1 using anti-SERPINA1 antibody (PB9354).

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 30 ug of sample under reducing conditions.

Lane 1: rat kidney tissue lysates,

Lane 2: rat lung tissue lysates,

Lane 3: rat testis tissue lysates,

Lane 4: mouse kidney tissue lysates,

Lane 5: mouse lung 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-SERPINA1 antigen affinity purified polyclonal antibody (Catalog # PB9354) 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 1:5000 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 SERPINA1 at approximately 53 kDa. The expected band size for SERPINA1 is at 47 kDa.

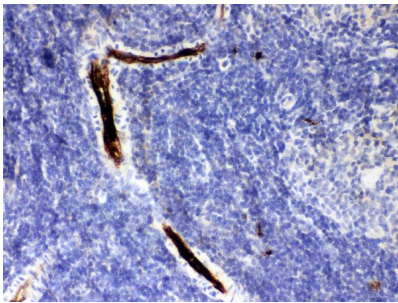


Figure 2. IHC analysis of SERPINA1 using anti-SERPINA1 antibody (PB9354).

SERPINA1 was detected in a paraffin-embedded section of rat spleen 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 ug/ml rabbit anti-SERPINA1 Antibody (PB9354) 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.

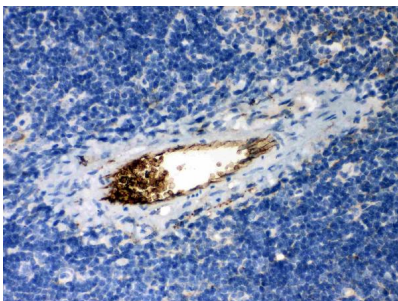


Figure 3. IHC analysis of SERPINA1 using anti-SERPINA1 antibody (PB9354).

SERPINA1 was detected in a paraffin-embedded section of mouse spleen 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 ug/ml rabbit anti-SERPINA1 Antibody (PB9354) 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.

2 Publications Citing This Product

1. PubMed ID: 10.1016/j.jprot.2016.08.013, Label-free proteomic analysis of placental proteins during Toxoplasma gondii infection
2. PubMed ID: 29434730, Lv X, Gao F, Liu Q, Zhang S, Huang Z, Zhu Y, Zong H, Li Q, Li S. Exp Ther Med. 2018 Feb;15(2):1465-1473. doi: 10.3892/etm.2017.5554. Epub 2017 Nov 23. Clinical and pathological characteristics of IgG4-related interstitial lung disease

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