

Anti-Azurocidin/AZU1 Antibody Picoband®

Catalog Number: A05212-1

About AZU1

Azurocidin also known as cationic antimicrobial protein CAP37 or heparin-binding protein (HBP) is a protein that in humans is encoded by the AZU1 gene. Azurophil granules, specialized lysosomes of the neutrophil, contain at least 10 proteins implicated in the killing of microorganisms. This gene encodes a preproprotein that is proteolytically processed to generate a mature azurophil granule antibiotic protein, with monocyte chemotactic and antimicrobial activity. It is also an important multifunctional inflammatory mediator. This encoded protein is a member of the serine protease gene family but it is not a serine proteinase, because the active site serine and histidine residues are replaced. The genes encoding this protein, neutrophil elastase 2, and proteinase 3 are in a cluster located at chromosome 19pter. All 3 genes are expressed coordinately and their protein products are packaged together into azurophil granules during neutrophil differentiation.

Overview

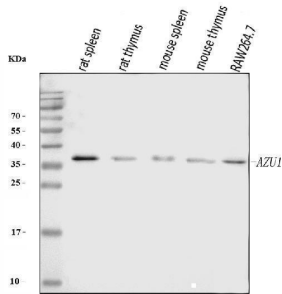
Product Name	Anti-Azurocidin/AZU1 Antibody Picoband®
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Azurocidin/AZU1 Antibody Picoband® catalog # A05212-1. Tested in ELISA, Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this 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	ELISA, Flow Cytometry, IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na ₂ HPO ₄ .
Storage Instructions	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 freezing and thawing.
Host	Rabbit
Uniprot ID	P20160

Technical Details

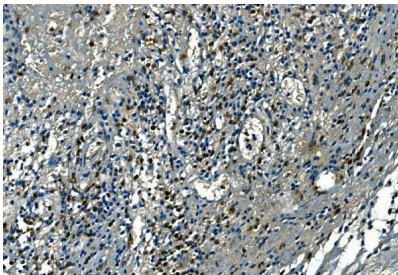
Immunogen	E.coli-derived human Azurocidin/AZU1 recombinant protein (Position: I27-N245).
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).
Cross 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, 0.25-0.5 ug/ml, Mouse, Rat Immunohistochemistry(Paraffin-embedded Section), 2-5 ug/ml, Human Flow Cytometry (Fixed), 1-3 ug/1x10 ⁶ cells, Human ELISA, 0.1-0.5 ug/ml, -

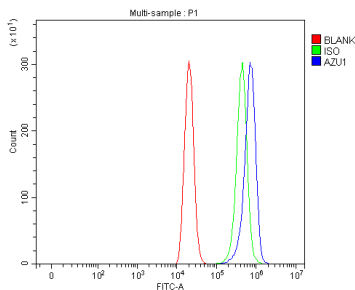
Anti-Azurocidin/AZU1 Antibody Picoband® (A05212-1) Images



Western blot analysis of Azurocidin/AZU1 using anti-Azurocidin/AZU1 antibody (A05212-1). 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 spleen tissue lysates, Lane 2: rat thymus tissue lysates, Lane 3: mouse spleen tissue lysates, Lane 4: mouse thymus tissue lysates, Lane 5: mouse RAW264.7 whole cell 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-Azurocidin/AZU1 antigen affinity purified polyclonal antibody (Catalog # A05212-1) 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 Azurocidin/AZU1 at approximately 37 kDa. The expected band size for Azurocidin/AZU1 is at 37 kDa.



IHC analysis of Azurocidin/AZU1 using anti-Azurocidin/AZU1 antibody (A05212-1). Azurocidin/AZU1 was detected in a paraffin-embedded section of human appendicitis 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-Azurocidin/AZU1 Antibody (A05212-1) 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.



Flow Cytometry analysis of THP-1 cells using anti-Azurocidin/AZU1 antibody (A05212-1). Overlay histogram showing THP-1 cells stained with A05212-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-Azurocidin/AZU1 Antibody (A05212-1, 1 ug/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10 ug/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

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Anti-Azurocidin/AZU1 Antibody

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