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antibody and ELISA experts

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Anti-Gelsolin/GSN Antibody Picoband®

Catalog Number: PA2109

About GSN

Gelsolin also known as GNS is an actin-binding protein that is a key regulator of actin filament assembly and disassembly. Gelsolin is one of the most potent members of the actin-severing gelsolin/villin superfamily. The gene was assigned to human chromosome 9q33.2. Gelsolin is also known as brevin, or actin-depolymerizing factor; it is the principal intracellular and extracellular actin-severing protein. Gelsolin and Gc protein together constitute the extracellular actin-scavenger system which prevents the toxic effects of actin release into the extracellular space under circumstances of cell necrosis. Gelsolin may have therapeutic potential as a mucolytic agent in CF patients. The antiapoptotic activity of gelsolin seems to prevent a step leading to cytochrome c release from the mitochondria into the cytosol.

Overview

Product Name	Anti-Gelsolin/GSN Antibody Picoband®
Reactive Species	Human, Monkey, Mouse, Rat
Description	Boster Bio Anti-Gelsolin/GSN Antibody catalog # PA2109. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey, 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	Flow Cytometry, IF, IHC, ICC, 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	P06396

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Gelsolin, identical to the related rat sequence, and different from the related mouse sequence by one amino acid.
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) and ICC.

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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, Monkey, Rat Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Rat Immunocytochemistry , 0.5-1ug/ml, Mouse Immunocytochemistry/Immunofluorescence, 2ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10^6 cells, Human

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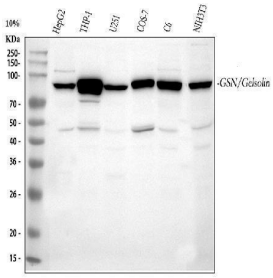
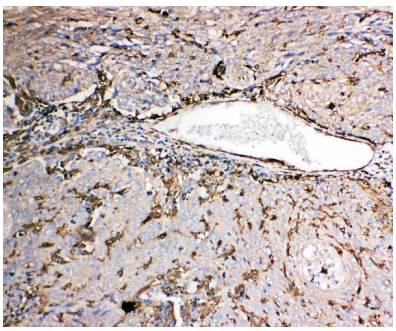
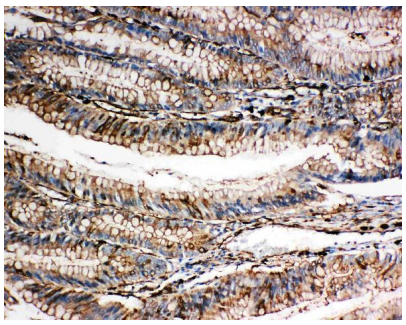
Anti-Gelsolin/GSN Antibody Picoband® (PA2109) Images



Western blot analysis of Gelsolin using anti-Gelsolin antibody (PA2109). 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: human HepG2 whole cell lysates, Lane 2: human THP-1 whole cell lysates, Lane 3: human U251 whole cell lysates, Lane 4: monkey COS-7 whole cell lysates, Lane 5: rat C6 whole cell lysates, Lane 6: mouse NIH/3T3 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-Gelsolin antigen affinity purified polyclonal antibody (Catalog # PA2109) 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 Gelsolin at approximately 86 kDa. The expected band size for Gelsolin is at 86 kDa.



IHC analysis of Gelsolin/GSN using anti-Gelsolin/GSN antibody (PA2109). Gelsolin/GSN was detected in paraffin-embedded section of Human Lung 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-Gelsolin/GSN Antibody (PA2109) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of Gelsolin/GSN using anti-Gelsolin/GSN antibody (PA2109). Gelsolin/GSN was detected in paraffin-embedded section of Human Intestinal 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-Gelsolin/GSN Antibody (PA2109) 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 Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.

IHC analysis of Gelsolin/GSN using anti-Gelsolin/GSN antibody (PA2109). Gelsolin/GSN was detected in paraffin-embedded section of Rat Cardiac Muscle tissues. Heat

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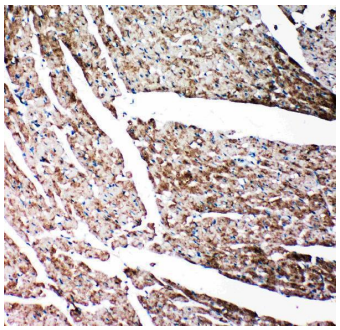
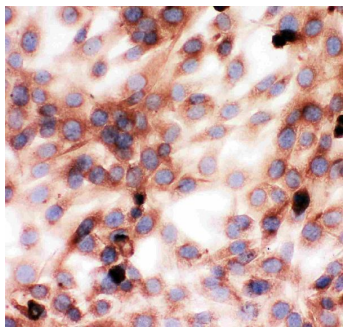
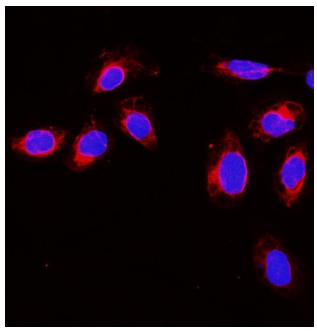


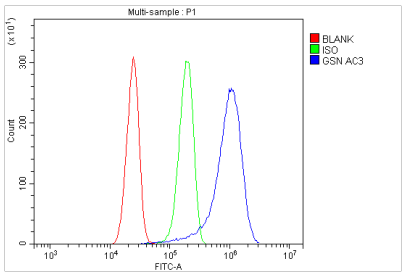
mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-Gelsolin/GSN Antibody (PA2109) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IHC analysis of Gelsolin/GSN using anti-Gelsolin/GSN antibody (PA2109). Gelsolin/GSN was detected in immunocytochemical section of NIH3T3 Cell. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 1ug/ml rabbit anti-Gelsolin/GSN Antibody (PA2109) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



IF analysis of Gelsolin using anti-Gelsolin antibody (PA2109). Gelsolin was detected in immunocytochemical section of U20S cells. Enzyme antigen retrieval was performed using IHC enzyme antigen retrieval reagent (AR0022) for 15 mins. The cells were blocked with 10% goat serum. And then incubated with 2ug/mL rabbit anti-Gelsolin Antibody (PA2109) overnight at 4°C. DyLight®594 Conjugated Goat Anti-Rabbit IgG (BA1142) was used as secondary antibody at 1:100 dilution and incubated for 30 minutes at 37°C. The section was counterstained with DAPI. Visualize using a fluorescence microscope and filter sets appropriate for the label used.



Flow Cytometry analysis of U87 cells using anti-Gelsolin antibody (PA2109). Overlay histogram showing U87 cells stained with PA2109 (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-Gelsolin Antibody (PA2109, 1ug/1x106 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127, 5-10ug/1x106 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1ug/1x106) used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.

1 Publications Citing This Product

1. PubMed ID: 28656274, Guo, Y., Cui, L., Jiang, S., Zhang, A., & Jiang, S. (2017). Proteomics of acute heart failure in a rat post-myocardial infarction model. Molecular Medicine Reports, 16(2), 1946-1956. Advance online publication. doi: 10.3892/mmr.2017.6820

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