

Anti-Annexin A1/ANXA1 Antibody Picoband®

Catalog Number: PA1006

About ANXA1

Annexin I, also known as lipocortin I (Lipo1), belongs to the family of annexins. These proteins are thought to control the biosynthesis of the potent mediators of inflammation, prostaglandins and leukotrienes. In two lipocortins (I and II) a short amino-terminal sequence distinct from the core structure has potential regulatory functions which are dependent on its phosphorylation state. The gene in the mouse encodes a protein of 346 amino acid residues. Mouse Lipo1 gene spans about 17 kb and is divided into 13 exons. Annexin I gene, mapped to 9q11-q22, is located on mouse chromosome 19. Annexin I acts through the formyl peptide receptor on human neutrophils. Peptides derived from the unique N-terminal domain of annexin I serve as FPR ligands and trigger different signaling pathways in a dose-dependent manner.

Overview

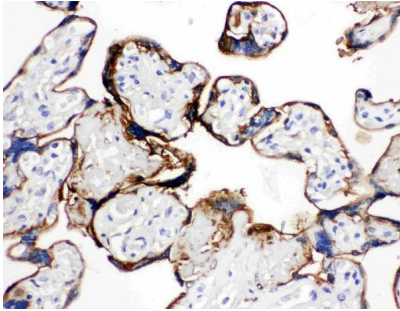
Product Name	Anti-Annexin A1/ANXA1 Antibody Picoband®
Reactive Species	Human, Monkey
Description	Boster Bio Anti-Annexin A1/ANXA1 Antibody catalog # PA1006. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Monkey. The brand Picoband indicates this is a premium 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 Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ . *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	P04083

Technical Details

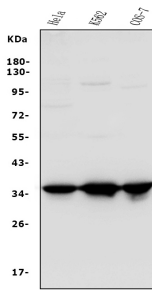
Immunogen	A synthetic peptide corresponding to a sequence at the N-terminus of human Annexin A1.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.

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, Monkey Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Immunocytochemistry/Immunofluorescence, 5ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

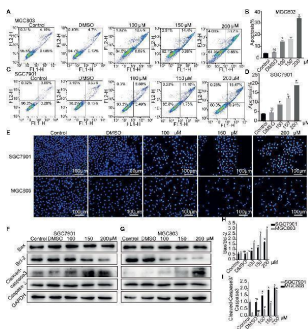
Anti-Annexin A1/ANXA1 Antibody Picoband® (PA1006) Images



Anti-Annexin A1 antibody, PA1006, IHC(P)IHC(P): Human Placenta Tissue

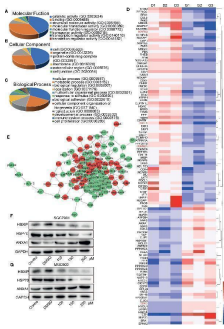


Western blot analysis of Annexin A1/ANXA1 using anti-Annexin A1/ANXA1 antibody (PA1006). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human K562 whole cell lysates, Lane 3: monkey COS-7 whole cell lysates. 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-Annexin A1/ANXA1 antigen affinity purified polyclonal antibody (Catalog # PA1006) 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 Annexin A1/ANXA1 at approximately 39KD. The expected band size for Annexin A1/ANXA1 is at 39KD.

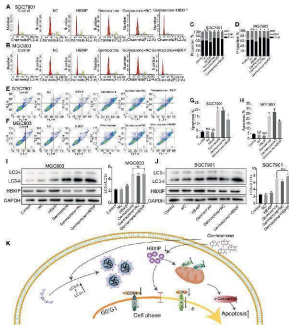


Germacrone induced apoptosis in gastric cancer cells. (A-D) Annexin IV-fluorescein isothiocyanate (FITC)/propidium iodide (PI) staining was used to assess the effect of germacrone on apoptosis by flow cytometry (FCM). (E) Hoechst 33258 staining was used to detect apoptosis. (F, G) Changes in the expression levels of BAX, Bcl-2, caspase-3, and cleaved caspase-3 were detected by western blot. (H, I) Changes in the BAX/Bcl-2 and cleaved caspase-3/caspase-3 ratios were analyzed after germacrone treatment. Data are the means \pm SD of three experiments. * $P < 0.05$; ns, not significant. Index in PubMed under a CC BY license. PMID: 33244453

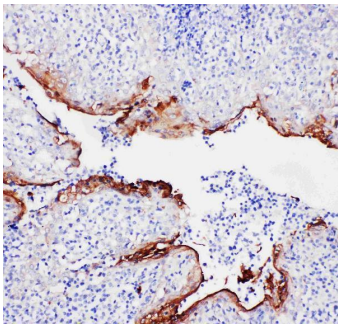
Label-free proteomic and bioinformatic analysis of proteins associated with the cell cycle, apoptosis, and autophagy. (A-C) The DAVID database was used for analysis of molecular function, cellular component, and biological process. (D) A heat map was constructed based on the abundance of 111 proteins. D1, D2, and D3 represent the



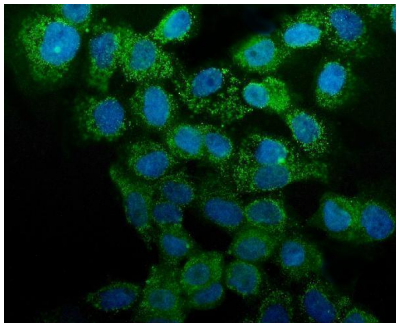
DMSO 1, DMSO 2, and DMSO 3 groups; G1, G2, and G3 represent the germacrone 1, germacrone 2, and germacrone 3 groups. (E) A protein interaction network was constructed in Cytoscape based on the information provided by the STRING database. Red indicates increased expression of the protein in the germacrone group; green indicates reduced expression of the protein in the germacrone group. (F, G) . The expression of HBXIP, HSP70, and ANXA1 was detected to verify the accuracy of the proteomics results. Index in PubMed under a CC BY license. PMID: 33244453



Overexpression of HBXIP regulated autophagy and reversed the germacrone-induced cell cycle arrest and apoptosis. (A-D) Propidium iodide (PI) staining was used for flow cytometric (FCM) analysis of the effect of germacrone and overexpression of HBXIP on the cell cycle. (E-H) Annexin IV-fluorescein isothiocyanate (FITC)/PI staining was used to detect the effect of germacrone and overexpression of HBXIP on apoptosis by FCM. (I, J) The expression of HBXIP, p-62, LC3I, and LC3II was detected by western blot. (K) A schematic of the effect of germacrone on gastric cancer cells. Germacrone inhibits gastric cancer cell proliferation involving HBXIP-mediated regulation of the cell cycle, apoptosis, and autophagy. Data are the means \pm SD of three experiments. * $P < 0.05$; ns, not significant. Index in PubMed under a CC BY license. PMID: 33244453

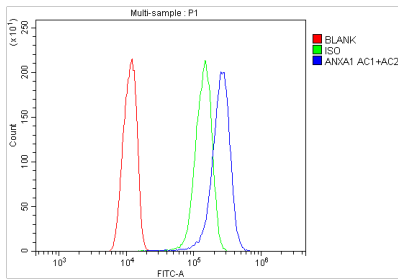


Anti-Annexin A1 antibody, PA1006, IHC(P)IHC(P): Human Tonsil Tissue



IF analysis of Annexin A1/ANXA1 using anti-Annexin A1/ANXA1 antibody (PA1006). Annexin A1/ANXA1 was detected in immunocytochemical section of A431 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 5ug/mL rabbit anti-Annexin A1/ANXA1 Antibody (PA1006) overnight at 4°C. DyLight®488 Conjugated Goat Anti-Rabbit IgG (BA1127) 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 A431 cells using anti-Annexin A1/ANXA1 antibody (PA1006). Overlay histogram showing A431 cells stained with PA1006 (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-Annexin A1/ANXA1 Antibody (PA1006, 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.

6 Publications Citing This Product

1. PubMed ID: 10.1038/s41598-020-77902-5, Defective membrane repair machinery impairs survival of invasive cancer cells
2. PubMed ID: 10.1016/j.bbamcr.2016.06.003, Membrane repair of human skeletal muscle cells requires Annexin-A5
3. PubMed ID: 23587191, Annexin A1 protein regulates the expression of PMVEC cytoskeletal proteins in CBDL rat serum-induced pulmonary microvascular remodeling

Visit bosterbio.com/anti-annexin-a1-antibody-pa1006-boster.html to see all 6 publications.

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Anti-Annexin A1/ANXA1 Antibody

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