

Anti-Protein C/PROC Antibody Picoband®

Catalog Number: PA1682

About PROC

Protein C (PROC), also called PC, is a zymogenic (inactive) protein, the activated form of which plays an important role in regulating blood clotting, inflammation, cell death and maintaining the permeability of blood vessel walls in humans and other animals. The PROC gene is mapped on 2q14.3. The PROC gene contains 8 exons and spans about 11 kb by Foster et al. The conversion of protein C to a protease with anticoagulant function by thrombin requires as a cofactor thrombomodulin, an endothelial cell membrane protein. Riewald et al. demonstrated that activated protein C uses the endothelial cell protein C receptor as a coreceptor for cleavage of protease-activated receptor-1 on endothelial cells. Faust et al. demonstrated that the endothelial pathways required for protein C activation are impaired in severe meningococcal sepsis. They stated that improvement in the outcome of children with meningococcal sepsis who were treated with unactivated protein C concentrates had been described in case reports and in 1 uncontrolled series.

Overview

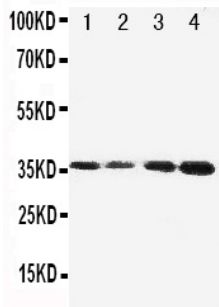
Product Name	Anti-Protein C/PROC Antibody Picoband®
Reactive Species	Human
Description	Boster Bio Anti-Protein C/PROC Antibody catalog # PA1682. Tested in Flow Cytometry, IHC, ICC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees 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, 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	P04070

Technical Details

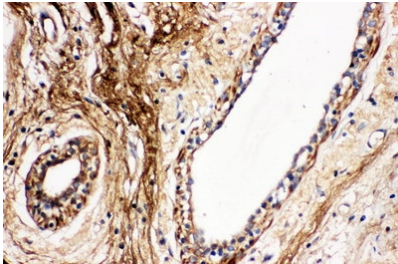
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Protein C.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western

	blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P), IHC(F) 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	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human Immunohistochemistry (Frozen Section), 0.5-1ug/ml, Human Immunocytochemistry, 0.5-1ug/ml, Human Flow Cytometry (Fixed), 1-3ug/1x10 ⁶ cells, Human

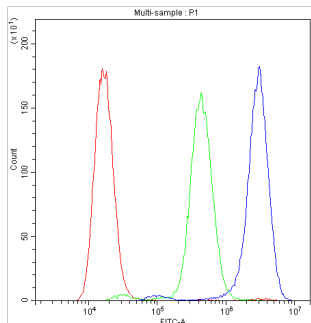
Anti-Protein C/PROC Antibody Picoband® (PA1682) Images



Western blot analysis of Protein C using anti-Protein C antibody (PA1682). 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: JURKAT Cell Lysate Lane 2: CEM Cell Lysate Lane 3: SMMC Cell Lysate Lane 4: HELA 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-Protein C antigen affinity purified polyclonal antibody (Catalog # PA1682) 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 Protein C at approximately 36KD. The expected band size for Protein C is at 52KD.



IHC analysis of Protein C using anti-Protein C antibody (PA1682). Protein C was detected in paraffin-embedded section of human mammary 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-Protein C Antibody (PA1682) 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.



Flow Cytometry analysis of A549 cells using anti-PROC antibody (PA1682). Overlay histogram showing A549 cells stained with PA1682 (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-PROC Antibody (PA1682, 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.

10 Publications Citing This Product

Res. 2014 Oct 14;16(5):454. Doi: 10.1186/S13058-014-0454-2. Nuclear Factor Of Activated T Cells 5 Maintained By Hotair Sup...

2. PubMed ID: 26022197, Liu R, An L, Liu G, Li X, Tang W, Chen X. Antiviral Res. 2015 Aug;120:101-11. Doi: 10.1016/J.Antiviral.2015.05.008. Epub 2015 May 27. Mouse Lung Slices: An Ex Vivo Model For The Evaluation Of Antiviral And Anti-Inflammatory Agents Against Influenz...

3. PubMed ID: 21486673, Bao Hj, Liu Y, Qin Jh, Xu Cs, Hei Nn, Jaber Jr, Chen Qs. Res Vet Sci. 2011 Dec;91(3):E16-24. Doi: 10.1016/J.Rvsc.2011.02.015. Epub 2011 Apr 12. An Immunohistochemical Study Of S-100 Protein In The Intestinal Tract Of Chinese Soft-Shelled Turtle, P...

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