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Product datasheet

Anti-Protein C antibody ab131251

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Overview

Product name	Anti-Protein C antibody
Description	Rabbit polyclonal to Protein C
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P
Species reactivity	**Reacts with:** Human
Immunogen	Synthetic peptide corresponding to a sequence at the C terminal of Human Protein C.
Positive control	Jurkat, CEM, SMMC and Hela cell lysates Flow Cyt (Intra): A549 cells
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	Preservatives: 0.025% Thimerosal (merthiolate), 0.025% Sodium azide Constituents: 2.5% BSA, 0.1% Dibasic monohydrogen sodium phosphate, 0.45% Sodium chloride
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee	Our **Abpromise guarantee** covers the use of ab131251 in the following tested applications.

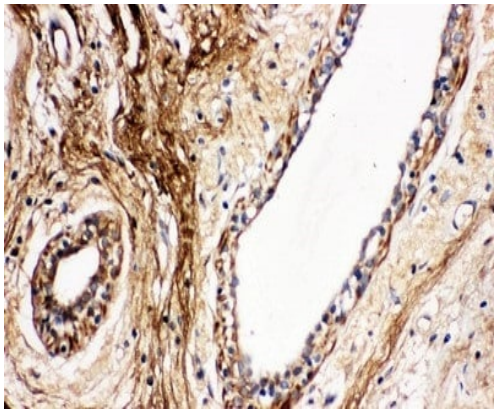
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
Flow Cyt (Intra)		Use 1-3µg for 10^6 cells.
WB		Use a concentration of 0.1 - 0.5 µg/ml. Predicted molecular weight: 52 kDa.
IHC-P		Use a concentration of 0.5 - 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.

Target

Function	Protein C is a vitamin K-dependent serine protease that regulates blood coagulation by inactivating factors Va and VIIIa in the presence of calcium ions and phospholipids (PubMed:25618265). Exerts a protective effect on the endothelial cell barrier function (PubMed:25651845).
Tissue specificity	Plasma; synthesized in the liver.
Involvement in disease	Thrombophilia due to protein C deficiency, autosomal dominant Thrombophilia due to protein C deficiency, autosomal recessive
Sequence similarities	Belongs to the peptidase S1 family. Contains 2 EGF-like domains. Contains 1 Gla (gamma-carboxy-glutamate) domain. Contains 1 peptidase S1 domain.
Post-translational modifications	The vitamin K-dependent, enzymatic carboxylation of some Glu residues allows the modified protein to bind calcium. N- and O-glycosylated. Partial (70%) N-glycosylation of Asn-371 with an atypical N-X-C site produces a higher molecular weight form referred to as alpha. The lower molecular weight form, not N-glycosylated at Asn-371, is beta. O-glycosylated with core 1 or possibly core 8 glycans. The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains. May be phosphorylated on a Ser or Thr in a region (AA 25-30) of the propeptide.
Cellular localization	Secreted. Golgi apparatus. Endoplasmic reticulum.

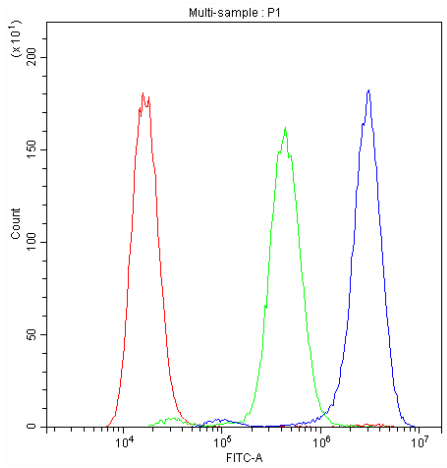
Images



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Protein C antibody (ab131251)

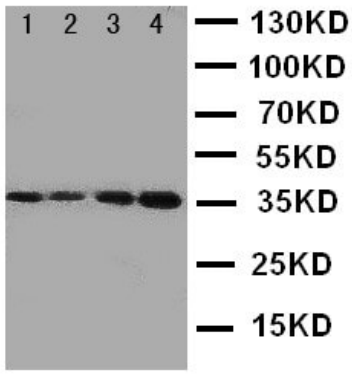
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) of Protein C using ab131251 at 1µg/ml in human mammary cancer tissues.

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. 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 with DAB as the chromogen.



Flow Cytometry (Intracellular) - Anti-Protein C antibody (ab131251)

Overlay histogram showing A549 cells stained with ab131251 (Blue line).The cells were blocked with 10% normal goat serum. And then incubated with ab131251 1µg/1x10^6 cells for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG 5-10 µg/1x10^6 cells was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG (1µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



Western blot - Anti-Protein C antibody (ab131251)

All lanes : Anti-Protein C antibody (ab131251) at 0.5 µg/ml

Lane 1 : Jurkat cell lysate
Lane 2 : CEM cell lysate
Lane 3 : SMMC cell lysate
Lane 4 : Hela cell lysate

Predicted band size: 52 kDa

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