

Product Name: Protein C Rabbit Polyclonal Antibody**Catalog #: APRab16530**

For research use only.

Summary

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|----------------------|---|
| Description | Rabbit polyclonal Antibody |
| Host | Rabbit |
| Application | WB,IHC,ICC/IF,ELISA |
| Reactivity | Human,Rat,Mouse |
| Conjugation | Unconjugated |
| Modification | Unmodified |
| Isotype | IgG |
| Clonality | Polyclonal |
| Form | Liquid |
| Concentration | 1mg/ml |
| Storage | Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles. |
| Shipping | Ice bags |
| Buffer | Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N. |
| Purification | Affinity purification |

Application

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|-------------------------|---|
| Dilution Ratio | WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000 |
| Molecular Weight | 52kDa |

Antigen Information

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|--------------------------|---|
| Gene Name | PROC |
| Alternative Names | PROC; Vitamin K-dependent protein C; Anticoagulant protein C; Autoprothrombin IIA; Blood coagulation factor XIV |
| Gene ID | 5624.0 |
| SwissProt ID | P04070 |
| Immunogen | The antiserum was produced against synthesized peptide derived from the Internal region of human PROC. AA range:181-230 |

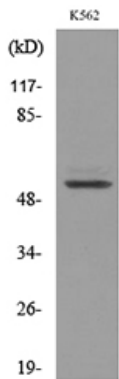
Background

This gene encodes a vitamin K-dependent plasma glycoprotein. The encoded protein is cleaved to its activated form by the thrombin-thrombomodulin complex. This activated form contains a serine protease domain and functions in degradation of the activated forms of coagulation factors V and VIII. Mutations in this gene have been associated with thrombophilia due to protein C deficiency, neonatal purpura fulminans, and recurrent venous thrombosis.[provided by RefSeq, Dec 2009],catalytic activity:Degradation of blood coagulation factors Va and VIIIa.,disease:Defects in PROC are the cause of protein C deficiency autosomal dominant (ADPROCD) [MIM:176860]. ADPROCD is a cause of hereditary thrombophilia, a hemostatic disorder characterized by impaired regulation of blood coagulation and a tendency to recurrent venous thrombosis. However, many adults with heterozygous disease may be asymptomatic. Individuals with decreased amounts of protein C are classically referred to as having type I protein C deficiency and those with normal amounts of a functionally defective protein as having type II deficiency.,disease:Defects in PROC are the cause of protein C deficiency autosomal recessive (ARPROCD) [MIM:612304]. ARPROCD results in a thrombotic condition that can manifest as a severe neonatal disorder or as a milder disorder with late-onset thrombophilia. The severe form leads to neonatal death through massive neonatal venous thrombosis. Often associated with ecchymotic skin lesions which can turn necrotic called purpura fulminans, this disorder is very rare.,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.,miscellaneous:Calcium also binds, with stronger affinity to another site, beyond the GLA domain. This GLA-independent binding site is necessary for the recognition of the thrombin-thrombomodulin complex.,online information:Protein C entry,PTM: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 glycosylated at Asn-371, is beta.,PTM:The iron and 2-oxoglutarate dependent 3-hydroxylation of aspartate and asparagine is (R) stereospecific within EGF domains.,PTM:The vitamin K-dependent, enzymatic carboxylation of some Glu residues allows the modified protein to bind calcium.,sequence caution:Translated as Cys.,similarity:Belongs to the peptidase S1 family.,similarity:Contains 1 Gla (gamma-carboxy-glutamate) domain.,similarity:Contains 1 peptidase S1 domain.,similarity:Contains 2 EGF-like domains.,subunit:Synthesized as a single chain precursor, which is cleaved into a light chain and a heavy chain held together by a disulfide bond. The enzyme is then activated by thrombin, which cleaves a tetradecapeptide from the amino end of the heavy chain; this reaction, which occurs at the surface of endothelial cells, is strongly promoted by thrombomodulin.,tissue specificity:Plasma; synthesized in the liver.,

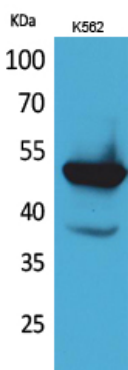
Research Area

Complement and coagulation cascades;

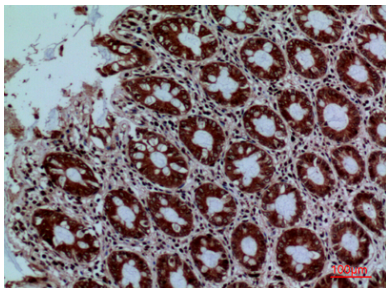
Image Data



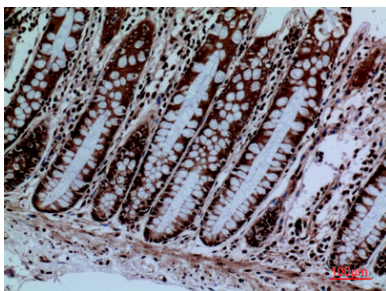
Western blot analysis of lysate from K562 cells, using PROC Antibody.



Western Blot analysis of K562 cells using Protein C Polyclonal Antibody.. Secondary antibody was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded human-colon, antibody was diluted at 1:100



Immunohistochemical analysis of paraffin-embedded human-colon, antibody was diluted at 1:100