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

Summary

Production Name	Protein C Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB,IHC,
Reactivity	Human,Rat,Mouse

Performance

Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.
Buffer	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Purification	Affinity purification

Immunogen

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.The antiserum was produced against synthesized peptide derived from the Internal region of human PROC. AA range:181-230

Application

Dilution Ratio	WB 1:500 - 1:2000 IHC 1:100 - 1:300. ELISA: 1:20000..
Molecular Weight	52kD

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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

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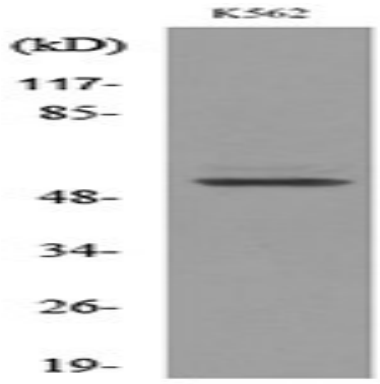
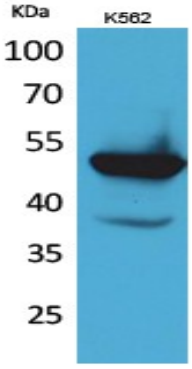
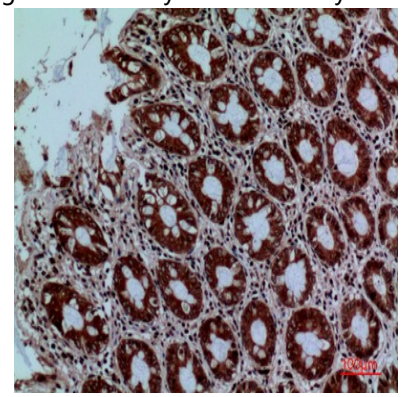


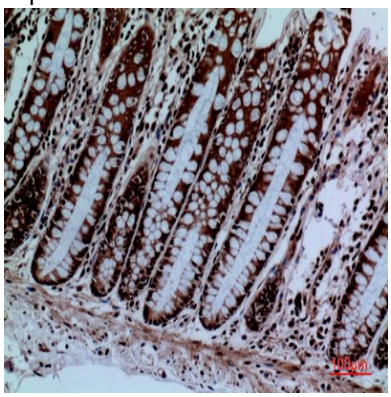
Western blot analysis of lysate from K562 cells, using PROC Antibody.



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



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Note

For research use only.