

## Rabbit Anti-protein C light chain antibody

SL10486R

<b>Product Name</b>	protein C light chain
<b>Chinese Name</b>	维生素 K 依赖的蛋白 C 轻链抗体
<b>Alias</b>	Protein C; Anticoagulant protein C; Autoprothrombin IIA; Blood coagulation factor XIV; EC 3.4.21.69; PC; PROC; PROC1; Vitamin K dependent protein C precursor; APC; EC 3.4.21.69; PC; proC; PROC_HUMAN; Protein C (inactivator of coagulation factors Va and VIIIa); Vitamin K dependent protein C; Vitamin K-dependent protein C; Vitamin K-dependent protein C light chain.
<b>Research Area</b>	Cardiovascular Cell biology immunology Signal transduction
<b>Immunogen Species</b>	Rabbit
<b>Clonality</b>	Polyclonal
<b>React Species</b>	(predicted: Human, ) ELISA=1:5000-10000
<b>Applications</b>	not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
<b>Theoretical molecular weight</b>	17/46kDa
<b>Cellular localization</b>	Secretory protein
<b>Form</b>	Liquid
<b>Concentration</b>	1mg/ml
<b>immunogen</b>	KLH conjugated synthetic peptide derived from human Vitamin K-dependent protein C light chain: 131-230/461
<b>Lsotype</b>	IgG
<b>Purification</b>	affinity purified by Protein A
<b>Buffer Solution</b>	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
<b>Storage</b>	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
<b>Attention</b>	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

## PubMed

### [PubMed](#)

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].

#### **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.

#### **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.

#### **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.

#### **DISEASE:**

Defects in PROC are the cause of thrombophilia due to protein C deficiency, autosomal dominant (THPH3) [MIM:176860]. 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

## Product Detail

deficiency.

Defects in PROC are the cause of thrombophilia due to protein C deficiency, autosomal recessive (THPH4) [MIM:612304]. A hemostatic disorder characterized by impaired regulation of blood coagulation and a tendency to recurrent venous thrombosis. It 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.

**Similarity:**

Belongs to the peptidase S1 family.

Contains 2 EGF-like domains.

Contains 1 Gla (gamma-carboxy-glutamate) domain.

Contains 1 peptidase S1 domain.

**SWISS:**

P04070

**Gene ID:**

5624

**Database links:**

[Entrez Gene: 5624](#) Human

[Omicron: 612283](#) Human

[SwissProt: P04070](#) Human

[Unigene: 224698](#) Human