Product Name: **Cleaved-Factor XII HC (I20) Rabbit Polyclonal Antibody**
Catalog #: **APRab08990**
For research use only.

Summary

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

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	

Antigen Information

Gene Name	F12
Alternative Names	F12; Coagulation factor XII; Hageman factor; HAF
Gene ID	2161.0
SwissProt ID	P00748
Immunogen	The antiserum was produced against synthesized peptide derived from human FA12. AA range:1-50

Background

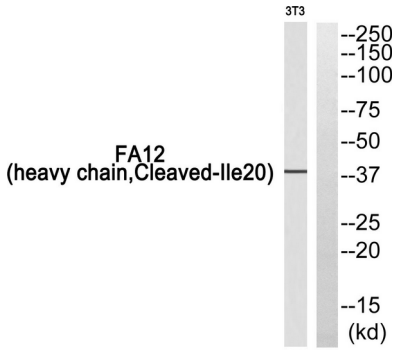
This gene encodes coagulation factor XII which circulates in blood as a zymogen. This single chain zymogen is converted to a

two-chain serine protease with an heavy chain (alpha-factor XIIa) and a light chain. The heavy chain contains two fibronectin-type domains, two epidermal growth factor (EGF)-like domains, a kringle domain and a proline-rich domain, whereas the light chain contains only a catalytic domain. On activation, further cleavages takes place in the heavy chain, resulting in the production of beta-factor XIIa light chain and the alpha-factor XIIa light chain becomes beta-factor XIIa heavy chain. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then to beta-factor XIIa. The active factor XIIa participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. It activatcatalytic activity:Selective cleavage of Arg-|-Ile bonds in factor VII to form factor VIIa and factor XI to form factor XIa.,disease:Defects in F12 are the cause of factor XII deficiency (FA12D) [MIM:234000]; also known as Hageman factor deficiency. This trait is an asymptomatic anomaly of in vitro blood coagulation. Its diagnosis is based on finding a low plasma activity of the factor in coagulating assays. It is usually only accidentally discovered through pre-operative blood tests. F12 deficiency is divided into two categories, a cross-reacting material (CRM)-negative group (negative F12 antigen detection) and a CRM-positive group (positive F12 antigen detection).,disease:Defects in F12 are the cause of hereditary angioedema type 3 (HAE3) [MIM:610618]; also known as estrogen-related HAE or hereditary angioneurotic edema with normal C1 inhibitor concentration and function. HAE is characterized by episodic local subcutaneous edema, and submucosal edema involving the upper respiratory and gastrointestinal tracts. HAE3 occurs exclusively in women and is precipitated or worsened by high estrogen levels (e.g., during pregnancy or treatment with oral contraceptives). It differs from HAE types 1 and 2 in that both concentration and function of C1 inhibitor are normal.,function:Factor XII is a serum glycoprotein that participates in the initiation of blood coagulation, fibrinolysis, and the generation of bradykinin and angiotensin. Prekallikrein is cleaved by factor XII to form kallikrein, which then cleaves factor XII first to alpha-factor XIIa and then to beta-factor XIIa. Alpha-factor XIIa activates factor XI to factor XIa.,online information:F12 mutation db,online information:Factor XII entry,PTM:O- and N-glycosylated. The O-linked polysaccharides were not identified, but are probably the mucin type linked to GalNAc.,similarity:Belongs to the peptidase S1 family.,similarity:Contains 1 fibronectin type-I domain.,similarity:Contains 1 fibronectin type-II domain.,similarity:Contains 1 kringle domain.,similarity:Contains 1 peptidase S1 domain.,similarity:Contains 2 EGF-like domains.,

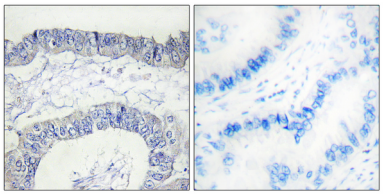
Research Area

Complement and coagulation cascades;

Image Data



Western blot analysis of FA12 (heavy chain, Cleaved-Ile20) Antibody. The lane on the right is blocked with the FA12 (heavy chain, Cleaved-Ile20) peptide.



Immunohistochemistryt analysis of paraffin-embedded human lung carcinoma, using FA12 （heavy chain, Cleaved-Ile20） Antibody. The lane on the right is blocked with the FA12 （heavy chain, Cleaved-Ile20） peptide.