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F10 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP6728b

Specification

F10 Antibody (C-term) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	P00742
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**54732**
Antigen Region	**351-381**

F10 Antibody (C-term) - Additional Information

Gene ID 2159

Other Names
Coagulation factor X, Stuart factor, Stuart-Prower factor, Factor X light chain, Factor X heavy chain, Activated factor Xa heavy chain, F10

Target/Specificity
This F10 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 351-381 amino acids from the C-terminal region of human F10.

Dilution
FC~~1:10~50
IHC-P~~1:50~100
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
F10 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

F10 Antibody (C-term) - Protein Information

Name F10

Function Factor Xa is a vitamin K-dependent glycoprotein that converts prothrombin to thrombin in the presence of factor Va, calcium and phospholipid during blood clotting (PubMed:22409427). Factor Xa activates pro-inflammatory signaling pathways in a protease-activated receptor (PAR)-dependent manner (PubMed:24041930, PubMed:30568593, PubMed:34831181, PubMed:18202198). Up-regulates expression of protease- activated receptors (PARs) F2R, F2RL1 and F2RL2 in dermal microvascular endothelial cells (PubMed:35738824). Triggers the production of pro- inflammatory cytokines, such as MCP-1/CCL2 and IL6, in cardiac fibroblasts and umbilical vein endothelial cells in PAR-1/F2R-dependent manner (PubMed:30568593, PubMed:34831181). Triggers the production of pro-inflammatory cytokines, such as MCP-1/CCL2, IL6, TNF-alpha/TNF, IL- 1beta/IL1B, IL8/CXCL8 and IL18, in endothelial cells and atrial tissues (PubMed:24041930, PubMed:35738824, PubMed:9780208). Induces expression of adhesion molecules, such as ICAM1, VCAM1 and SELE, in endothelial cells and atrial tissues (PubMed:24041930, PubMed:35738824, PubMed:9780208). Increases expression of phosphorylated ERK1/2 in dermal microvascular endothelial cells and atrial tissues (PubMed:24041930, PubMed:35738824). Triggers activation of the transcription factor NF-kappa-B in dermal microvascular endothelial cells and atrial tissues (PubMed:24041930, PubMed:35738824). Activates pro-inflammatory and pro-fibrotic responses in dermal fibroblasts and enhances wound healing probably via PAR-2/F2RL1-dependent mechanism (PubMed:18202198). Activates barrier protective signaling responses in endothelial cells in PAR-2/F2RL1-dependent manner; the activity depends on the cleavage of PAR-2/F2RL1 by factor Xa (PubMed:22409427). Up- regulates expression of plasminogen activator inhibitor 1 (SERPINE1) in atrial tissues (PubMed:24041930).

Cellular Location
Secreted.

Tissue Location
Plasma; synthesized in the liver.

F10 Antibody (C-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

F10 Antibody (C-term) - Images

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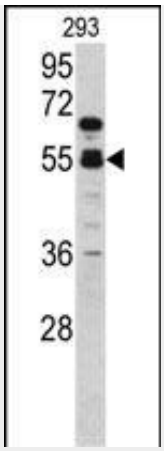
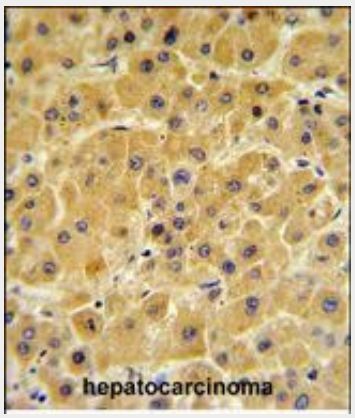
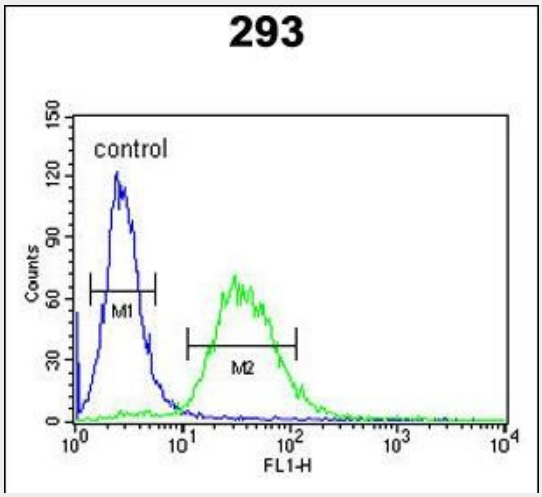


Western blot analysis of F10 antibody (C-term) (Cat. #AP6728b) in 293 cell line lysates (35ug/lane). F10 (arrow) was detected using the purified Pab.



F10 Antibody (C-term) (Cat. #AP6728b) IHC analysis in formalin fixed and paraffin embedded human hepatocarcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the F10 Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



F10 Antibody (C-term) (Cat. #AP6728b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

F10 Antibody (C-term) - Background

F10 is the vitamin K-dependent coagulation factor X of the blood coagulation cascade. This factor undergoes multiple processing steps before its preproprotein is converted to a mature two-chain form by the excision of the tripeptide RKR. Two chains of the factor are held together by 1 or more disulfide bonds; the light chain contains 2 EGF-like domains, while the heavy chain contains the catalytic domain which is structurally homologous to those of the other hemostatic serine proteases. The mature factor is activated by the cleavage of the activation peptide by factor IXa (in the intrisic pathway), or by factor VIIa (in the extrinsic pathway). The activated factor then converts prothrombin to thrombin in the presence of factor Va, Ca+2, and phospholipid during blood clotting.

F10 Antibody (C-term) - References

Alba,R., Blood 114 (5), 965-971 (2009)
Borensztajn,K., Thromb. Res. 124 (2), 219-225 (2009)
Larson,P.J., Biochemistry 37 (14), 5029-5038 (1998)