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factor V Rabbit pAb

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Catalog # AP54257

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	P12259
Reactivity	Rat
Predicted	Human, Mouse, Pig
Host	Rabbit
Clonality	Polyclonal
Calculated MW	251703
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Coagulation factor V heavy chain
Epitope Specificity	301-400/2224
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Secreted.
SIMILARITY	Belongs to the multicopper oxidase family. Contains 3 F5/8 type A domains.Contains 2 F5/8 type C domains.Contains 6 plastocyanin-like domains.
SUBUNIT	Factor Va, the activated form of factor V, is composed of a heavy chain and a light chain, non-covalently bound. The interaction between the two chains is calcium-dependent. Forms heterodimer with SERPINA5.
Post-translational modifications	Thrombin activates factor V proteolytically to the active cofactor, factor Va (formation of a heavy chain at the N-terminus and a light chain at the C-terminus).Sulfation is required for efficient thrombin cleavage and activation and for full procoagulant activity. Activated protein C inactivates factor V and factor Va by proteolytic degradation. Phosphorylation sites are present in the extracellular medium.
DISEASE	Factor V deficiency (FA5D) [MIM:227400]: A blood coagulation disorder leading to an hemorrhagic diathesis known as parahemophilia. Note=The disease is caused by mutations affecting the gene represented in this entry. Thrombophilia due to activated protein C resistance (THPH2) [MIM:188055]: A hemostatic disorder due to defective degradation of factor V by activated protein C. It is characterized by a poor anticoagulant response to activated protein C resulting in tendency to thrombosis. Note=The disease is caused by mutations affecting the gene represented in this entry. Budd-Chiari syndrome (BDCHS) [MIM:600880]: A syndrome caused by obstruction of hepatic venous outflow involving either the hepatic veins or the terminal segment of the inferior vena cava. Obstructions are generally caused by thrombosis and lead to hepatic congestion and ischemic necrosis. Clinical manifestations observed in the majority of patients include hepatomegaly, right upper quadrant pain and abdominal ascites. Budd-Chiari syndrome is associated with a combination of disease states including primary myeloproliferative syndromes and thrombophilia due to factor V Leiden, protein C deficiency

	and antithrombin III deficiency. Budd-Chiari syndrome is a rare but typical complication in patients with polycythemia vera. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry. Ischemic stroke (ISCHSTR) [MIM:601367]: A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry. Pregnancy loss, recurrent, 1 (RPRGL1) [MIM:614389]: A common complication of pregnancy, resulting in spontaneous abortion before the fetus has reached viability. The term includes all miscarriages from the time of conception until 24 weeks of gestation. Recurrent pregnancy loss is defined as 3 or more consecutive spontaneous abortions. Note=Disease susceptibility is associated with variations affecting the gene represented in this entry
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes coagulation factor V which is an essential factor of the blood coagulation cascade. This factor circulates in plasma, and is converted to the active form by the release of the activation peptide by thrombin during coagulation. This generates a heavy chain and a light chain which are held together by calcium ions. The active factor V is a cofactor that participates with activated coagulation factor X to activate prothrombin to thrombin. Defects in this gene result in either an autosomal recessive hemorrhagic diathesis or an autosomal dominant form of thrombophilia, which is known as activated protein C resistance.

Additional Information

Gene ID	2153
Other Names	Coagulation factor V, Activated protein C cofactor, Proaccelerin, labile factor, Coagulation factor V heavy chain, Coagulation factor V light chain, F5
Target/Specificity	Plasma.
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	F5
Function	Central regulator of hemostasis. It serves as a critical cofactor for the prothrombinase activity of factor Xa that results in the activation of prothrombin to thrombin.
Cellular Location	Secreted.
Tissue Location	Plasma.

Background

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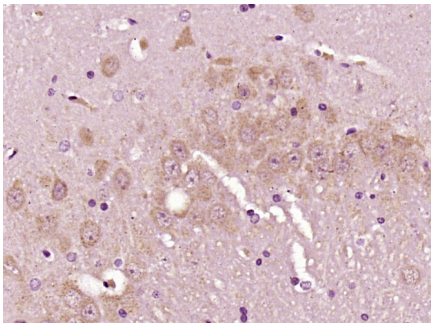
Images



Paraformaldehyde-fixed, paraffin embedded (Rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (factor V) Polyclonal Antibody, Unconjugated (AP54257) at 1:400 overnight at 4°C, followed by a conjugated secondary antibody (sp-0023) for 20 minutes and DAB staining.