Product Name: Cleaved-Factor XIIIa (G39) Rabbit Polyclonal Antibody
Catalog #: APRab08992

Summary

Production Name	Cleaved-Factor XIIIa (G39) Rabbit Polyclonal Antibody
Description	Rabbit Polyclonal Antibody
Host	Rabbit
Application	WB
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	F13A1
Alternative Names	F13A1; F13A; Coagulation factor XIII A chain; Coagulation factor XIIIa; Protein-glutamine gamma-glutamyltransferase A chain; Transglutaminase A chain
Gene ID	2162.0
SwissProt ID	P00488.The antiserum was produced against synthesized peptide derived from human FA13A. AA range:20-69

Application

Dilution Ratio	WB 1:500-1:2000. ELISA: 1:20000.
Molecular Weight	79kD

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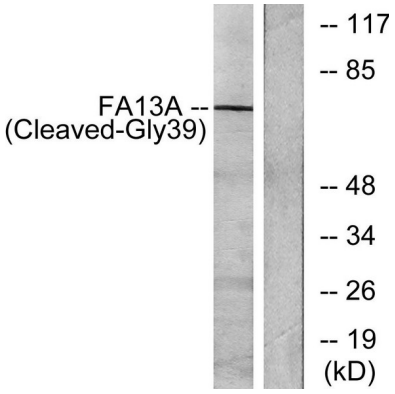
Background

This gene encodes the coagulation factor XIII A subunit. Coagulation factor XIII is the last zymogen to become activated in the blood coagulation cascade. Plasma factor XIII is a heterotetramer composed of 2 A subunits and 2 B subunits. The A subunits have catalytic function, and the B subunits do not have enzymatic activity and may serve as plasma carrier molecules. Platelet factor XIII is comprised only of 2 A subunits, which are identical to those of plasma origin. Upon cleavage of the activation peptide by thrombin and in the presence of calcium ion, the plasma factor XIII dissociates its B subunits and yields the same active enzyme, factor XIIIa, as platelet factor XIII. This enzyme acts as a transglutaminase to catalyze the formation of gamma-glutamyl-epsilon-lysine crosslinking between fibrin molecules, thus stabilizing the fibrin clot. It also crosslinks alpha-2-plasmin inhibitor, orcatalytic activity:Protein glutamine + alkylamine = protein N(5)-alkylglutamine + NH(3).,cofactor:Binds 1 calcium ion per subunit.,disease:Defects in F13A1 are the cause of F13A deficiency [MIM:134570]. F13A deficiency is an autosomal recessive disorder characterized by a life-long bleeding tendency, impaired wound healing and spontaneous abortion in affected women. In addition to the common presentation such as subcutaneous and intramuscular haematomas, severe bleeding such as intracranial hemorrhages may occur.,function:Factor XIII is activated by thrombin and calcium ion to a transglutaminase that catalyzes the formation of gamma-glutamyl-epsilon-lysine cross-links between fibrin chains, thus stabilizing the fibrin clot. Also cross-link alpha-2-plasmin inhibitor, or fibronectin, to the alpha chains of fibrin.,online information:Factor XIII entry,online information:The Singapore human mutation and polymorphism database,polymorphism:There are four main allelic forms of this protein; F13A*1A, F13A*1B, F13A*2A and F13A*2B. In addition two other intermediate forms (F13A*(2)A and F13A*(2)B) seem to exist. The sequence shown is that of F13A*(2)B.,PTM:The activation peptide is released by thrombin.,similarity:Belongs to the transglutaminase superfamily. Transglutaminase family.,subcellular location:Secreted into the blood plasma. Cytoplasmic in most tissues, but also secreted in the blood plasma.,subunit:Tetramer of two A chains and two B chains.,

Research Area

Complement and coagulation cascades;

Image Data



Western blot analysis of lysates from Jurkat cells, treated with etoposide 25uM 24h, using FA13A (Cleaved-Gly39)

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Antibody. The lane on the right is blocked with the synthesized peptide.

Note

For research use only.