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F12 Antibody (monoclonal) (M01)

Mouse monoclonal antibody raised against a partial recombinant F12.
Catalog # AT1975a

Product Information

Application	WB, E
Primary Accession	P00748
Other Accession	BC012390
Reactivity	Human
Host	mouse
Clonality	monoclonal
Isotype	IgG2a Kappa
Clone Names	3A3
Calculated MW	67792

Additional Information

Gene ID	2161
Other Names	Coagulation factor XII, Hageman factor, HAF, Coagulation factor XIIa heavy chain, Beta-factor XIIa part 1, Beta-factor XIIa part 2, Coagulation factor XIIa light chain, F12
Target/Specificity	F12 (AAH12390, 191 a.a. ~ 300 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.
Dilution	WB~~1:500~1000 E~~N/A
Format	Clear, colorless solution in phosphate buffered saline, pH 7.2 .
Storage	Store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.
Precautions	F12 Antibody (monoclonal) (M01) is for research use only and not for use in diagnostic or therapeutic procedures.

Background

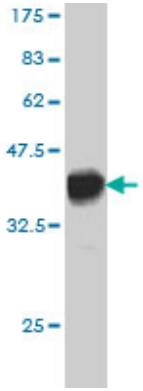
This gene encodes coagulation factor XII which circulates in blood as a zymogen. This single chain zymogen is converted to a two-chain serine protease with an heavy chain (alpha-factor XIIa) and a light chain. The heavy chain contains two fibronectin-type domains, two epidermal growth factor (EGF)-like 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 activates coagulation factors VII and XI. Defects in this gene do

not cause any clinical symptoms and the sole effect is that whole-blood clotting time is prolonged.

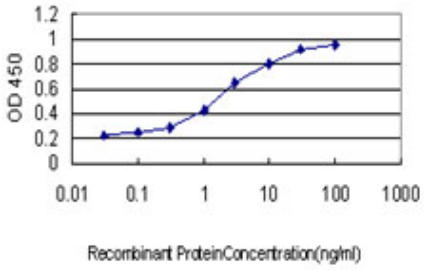
References

Influence of the F12 -4 C>T polymorphism on hemostatic tests. Corral J, et al. Blood Coagul Fibrinolysis, 2010 Sep 1. PMID 20814302.A genetic association study of maternal and fetal candidate genes that predispose to preterm prelabor rupture of membranes (PROM). Romero R, et al. Am J Obstet Gynecol, 2010 Jul 29. PMID 20673868.Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.Study of 18 functional hemostatic polymorphisms in mucocutaneous bleeding disorders. Ant?n AI, et al. Ann Hematol, 2010 Nov. PMID 20532885.Identification of fetal and maternal single nucleotide polymorphisms in candidate genes that predispose to spontaneous preterm labor with intact membranes. Romero R, et al. Am J Obstet Gynecol, 2010 May. PMID 20452482.

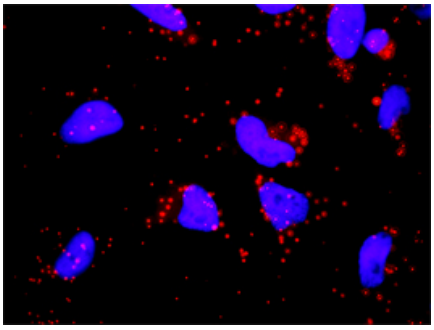
Images



Antibody Reactive Against Recombinant Protein.Western Blot detection against Immunogen (37.84 KDa) .



Detection limit for recombinant GST tagged F12 is approximately 0.03ng/ml as a capture antibody.



Proximity Ligation Analysis of protein-protein interactions between GP1BA and F12. HeLa cells were stained with anti-GP1BA rabbit purified polyclonal 1:1200 and anti-F12 mouse monoclonal antibody 1:50. Each red dot represents the detection of protein-protein interaction complex, and nuclei were counterstained with DAPI (blue).