Coagulation Factor XIII A1 Poly (F13A1) ELISA Kit for Human

PRODUCT OVERVIEW

Product Name	Coagulation Factor XIII A1 Polypeptide (F13A1), ELISA Kit
Full Product Name	Human Coagulation Factor XIII A1 Polypeptide (F13A1) ELISA Kit
Product Gene Name	F13A1 elisa kit
Product Synonym Names	F13-A1; FXIIIA1; Protein-glutamine gamma-glutamyltransferase A chain; Transglutaminase A chain; Coagulation factor XIII A chain
Species Reactivity	Human
Assay Type	Sandwich
Samples	Plasma.
Detection Range	18.75-1200pg/mL
Sensitivity	7.1pg/mL
Preparation and Storage	For unopened kit, all reagents should be kept according to the labels on vials. The TMB Substrate, Wash Buffer, Stop Solution should be stored at 4 degree C. All others should be stored at -20 degree C.
Molecular Weight	83,267 Da
OMIM	M14539 mRNA
3D Structure	ModBase 3D Structure for P00488
Intra Assay	CV<10%
Inter Assay	CV<12%
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Related Product Information for F13A1 elisa kit	MBS455381 is a ready-to-use microwell, strip-or-full plate ELISA (enzyme-linked immunosorbent assay) Kit for analyzing the presence of the Coagulation Factor XIII A1 Polypeptide (F13A1) ELISA Kit target analytes in biological samples. The concentration gradients of the kit standards or positive controls render a theoretical kit detection range in biological research samples containing F13A1. The ELISA analytical biochemical technique of the MBS455381 kit is based on F13A1 antibody-F13A1 antigen interactions (immunosorbency) and an HRP colorimetric detection system to detect F13A1 antigen targets in samples. The ELISA Kit is designed to detect native, not recombinant, F13A1. Appropriate sample types may include undiluted body fluids and/or tissue homogenates, secretions. Quality control assays assessing reproducibility identified the intra-assay CV (%) and inter-assay CV(%).
Other Notes	Small volumes of F13A1 elisa kit vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for F13A1. It may not necessarily be applicable to this product.

NCBI GI #	119395709
NCBI GeneID	2162
NCBI Accession #	NP_000120.2
UniProt Primary Accession #	P00488
UniProt Secondary Accession #	Q59HA7; Q8N6X2; Q96P24; Q9BX29

UniProt Related Accession #	P00488
GenBank Nucleotide #	NM_000129.3
NCBI Official Full Name	coagulation factor XIII A chain
NCBI Official Synonym Full Names	coagulation factor XIII A chain
NCBI Official Symbol	F13A1
NCBI Official Synonym Symbols	F13A
UniProt Protein Name	Coagulation factor XIII A chain
UniProt Synonym Protein Names	Protein-glutamine gamma-glutamyltransferase A chain; Transglutaminase A chain
Protein Family	Coagulation factor
UniProt Gene Name	F13A1
UniProt Synonym Gene Names	F13A; Coagulation factor XIIIa
NCBI Protein Information	coagulation factor XIII A chain
NCBI Summary for F13A1	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, or fibronectin, to the alpha chains of fibrin. Factor XIII deficiency is classified into two categories: type I deficiency, characterized by the lack of both the A and B subunits; and type II deficiency, characterized by the lack of the A subunit alone. These defects can result in a lifelong bleeding tendency, defective wound healing, and habitual abortion. [provided by RefSeq, Jul 2008]
UniProt Comments for F13A1	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.
Research Articles on F13A1	**1.** It is a unique case showing the combination of a highly aggressive angiosarcoma and presence of inherited FXIII deficiency. It is also a rare example demonstrating the benefit of FXIII genotyping besides the expected acquired FXIII deficiency possibly due to neoplasm induced increased consumption by elevated crosslinking of fibrin fibers.
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