

Recombinant Full Length Human F13A1 Protein, GST-tagged

Cat. No. F13A1-4494HF **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Human F13A1 full-length ORF (AAH27963, 1 a.a. - 732 a.a.) recombinant protein with GST-tag at N-terminal.
Species	Human
Source	In Vitro Cell Free System
ProteinLength	732 amino acids
Description	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.

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[provided by RefSeq, Jul 2008]

Molecular Mass 106.26 kDa

AA Sequence

MSETSRTAFGGRRVPPNNSNAEDDLPTVELQGVVPRGVNLQEFLNATSVHLFKE
 RWDTNKVDHHTDKYENNKLVRRGQSFYVQIDFSRPYDPRRDLFRVEYVIGRYPQE
 NKGTYIPVPIVSELQSGKWGAKIVMREDRSVRLSIQSSPKCIVGKFRMYVAVWTPYG
 VLRTSRNPETDTYILFNPWCEDDAVYLDNEKEREEYVLNDIGVIFYGEVNDIKTRSW
 YGQFEDGILDTCLYVMDRAQMDLSGRGNPIKVS RVGSAMVNAKDDEGVLVGSWDN
 IYAYGVPPSAWTGSVDILLEYSSEN PVRYGQCWVFAGVFNTFLRCLGIPARIVTNY
 FSAHDNDANLQMDIFLEEDGNVNSKLTKDSVWNYHCWNEAWMTRPDLPVGFGGW
 QAVDSTPQENS DGM YRCGPASVQAIKHGHVCFQFDAPFVFAEVNSDLIYITAKKDG
 THVVENV DATHIGKLIVTKQIGGDGMMDITDTYKFQEGQEEERLALETALMYGAKKP
 LNTGVMKSRSNVDMDFEVENAVLGKDFKLSITFRNNSHNRYTITAYLSANITFYTG
 PKAEFKKETFDVTLEPLSFKKEAVLIQAGEYMGQLLEQASLHFFVTARINETRDVLAK
 QKSTVLTIP EIIIKVRGTQVVGSDMTVIVEFTNPLKETLRNVVHLDGPGVTRPMKKM
 FREIRPNSTVQWEEVCRPWVSGHRKLIASMSSDSL RHVYGELDVQIQRRPSM

Applications

Enzyme-linked Immunoabsorbent Assay
 Western Blot (Recombinant protein)
 Antibody Production
 Protein Array

Notes

Best use within three months from the date of receipt of this protein.

Storage

Store at -80 centigrade. Aliquot to avoid repeated freezing and thawing.

Storage Buffer

50 mM Tris-HCl, 10 mM reduced Glutathione, pH=8.0 in the elution buffer.

GENE INFORMATION

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Gene Name	F13A1 coagulation factor XIII, A1 polypeptide [Homo sapiens]
Official Symbol	F13A1
Synonyms	F13A1; coagulation factor XIII, A1 polypeptide; F13A; coagulation factor XIII A chain; TGase; factor XIIIa; fibrinoligase; FSF, A subunit; coagulation factor XIIIa; transglutaminase A chain; transglutaminase. plasma; fibrin stabilizing factor, A subunit; coagulation factor XIII, A polypeptide; protein-glutamine gamma-glutamyltransferase A chain; bA525O21.1 (coagulation factor XIII, A1 polypeptide);
Gene ID	2162
mRNA Refseq	NM_000129
Protein Refseq	NP_000120
MIM	134570
UniProt ID	P00488