

Recombinant Full Length Human F13A1 Protein, C-Flag-tagged

Cat. No. F13A1-1437HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human F13A1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
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.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.

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Molecular Mass	79.2 kDa
AA Sequence	MSETSRTAFGGRRVPPNNSNAAEDDLPTVELQGVVPRGVNLQEFLNVTSVHLFKE RWDTNKVDHHTDKY ENNKLIVRRGQSFYVQIDFSRPYDPRRDLFRVEYVIGRYPQE NKGTYIPVPIVSELQSGKWGAKIVMRED RSVRLSIQSSPKCIVGKFRMYVAVWTPYG VLRTSRNPETDTYILFNPWCEDDAVYLDNEKEREEYVLNDI GVIFYGEVNDIKTRSW SYGQFEDGILDTCLYVMDRAQMDLSGRGNPIKVS RVGSAMVNAKDDEGVLVGSW DNIYAYGVPPSAWTGSVDILLEYSSENPNVRYGQCWVFAGVFNTFLRCLGIPARIVT NYFSAHDNDANLQ MDIFLEEDGNVNSKLTKDSVWNYHCWNEAWMTRPDLPVGFG GWQAVDSTPQENS DGM YRCGPASVQA IGHVCFQFDAPFVFAEVNSDLIYITAKK DGTHVVENV DATHIGKLIVTKQIGGDGMMDITDTYKFQEGQEE ERLALETALMYGAK KPLNTEGVMKSR SNVDMDFEVENAVLGKDFKLSITFRNNSHNRYTITAYLSANITF Y TGVPKAEFKKETFDVTLEPLSFKKEAVLIQAGEYMGQLLEQASLHFFVTARINETRDV LAKQKSTVLT IPEIIKVRGTQVVGSDMTVIVEFTNPLKETLRNVVHLDGPGVTRPM KKMFREIRPNSTVQWEEVCRPWV SGHRKLIASMSSDSL RHVYGELDVQIQRRPSMTRTRPLEQKLISEEDLAANDILDYKD DDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

Protein Families	Druggable Genome, Secreted Protein
Protein Pathways	Complement and coagulation cascades
Full Length	Full L.

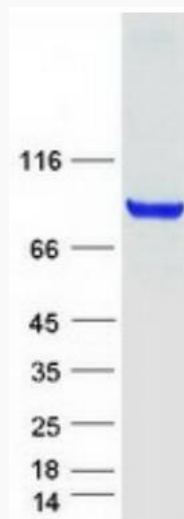
GENE INFORMATION

Gene Name	F13A1 coagulation factor XIII A chain [Homo sapiens (human)]
Official Symbol	F13A1
Synonyms	F13A
Gene ID	2162
mRNA Refseq	NM_000129.4
Protein Refseq	NP_000120.2
MIM	134570
UniProt ID	P00488

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Coomassie blue staining of purified F13A1 protein.

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