

## 32-7685: Recombinant Human Coagulation Factor XIII A Chain (C-6His)

**Gene :** F13A1  
**Gene ID :** 2162  
**Uniprot ID :** P00488

### Description

Source: Human Cells.  
MW :80.3kD.

Recombinant Human Coagulation Factor XIII A Chain is produced by our Mammalian expression system and the target gene encoding Gly39-Met732 is expressed with a 6His tag at the C-terminus. 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 composed of just 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. 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.

### Product Info

**Amount :** 10 µg / 50 µg  
**Content :** Supplied as a 0.2 µm filtered solution of 50 mM NaCl, 5% Sucrose, 1% Tween 20 (v/v), 0.3% Histidine (w/v), pH 8.0.  
**Storage condition :** Store at -20°C, stable for 6 months after receipt. Please minimize freeze-thaw cycles.  
**Amino Acid :** GVNLDQFLNVTSVHLFKERWDTNPKVDHHTDKYENKLVRRGQSFYVQIDFSRPYDPRRDLFRVEYVIGRYPQE NKGTYIPVPIVSELQSGKWKAGAKIVMREDRSVRLSIQSSPKCIVGKFRMYVAVWTPYGLRTRSRNPETDITYLFPN WCEDDAVYLDNEKEREEYVLNDIGVIFYGEVNDIKTRSWSYGQFEDGILDTCLYVMDRAQMDLSGRGNPIKVS RVGSAMVNAKDDDEGLVVGSDNIYAYGVPPSAWTGSVDILLEYSSENVPVRYGQCWVFAGVFNTFLRCLGIP ARIVTNYFSAHDNDANLQMDIFLEEDGNVNSKLTKDSVWNYHCWNEAWMTRPDLVPGFGGWQAVDSTPQE NSDGMRYRCGPASVQAIKHGHVCFQFDAPFVFAEVNSDLIYITAKKDGTHVVENVDATHIGKLIVTKQIGGDGM MDITDITYKFQEGQEEERLALETALMYGAKKPLNTEGVMKRSRNVDMDFEVENAVLGKDFKLSITFRNNSHNRY TITAYLSANITFYTGVPKAEFKKETFDTLEPLSFKKEAVLIQAGEYMGQLLEQASLHFFVTARINETRDVLAKQKS TVLTIPEIIIKVRGTQVVGSDMTVTVQFTNPLKETLRNVVHLDGPGVTRPMKMFREIRPNSTVQWEEVCRPW VSGHRKLIASMSDSL RHVY GELDVQIQRRPSMVDHHHHHH

### Application Note

**Endotoxin :** Less than 0.1 ng/µg (1 IEU/µg) as determined by LAL test.