

Product datasheet for **TP726929**

Factor XIIIa (F13A1) Human Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant Human Coagulation Factor XIII A Chain (C-6His)
Species:	Human
Expression cDNA Clone or AA Sequence:	Gly39-Met732
Tag:	C-His
Buffer:	Supplied as a 0.2 um filtered solution of 50 mM NaCl, 5% Sucrose, 1% Tween 20 (v/v), 0.3% Histidine (w/v), pH 8.0.
Note:	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.
Stability:	12 months from date of despatch
Locus ID:	2162
UniProt ID:	P00488
Summary:	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.



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