Recombinant Bovine Coagulation factor XIII A chain (F13A1)

Product Code	CSB-EP007919BO-B
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P12260
Product Type	Recombinant Protein
Immunogen Species	Bos taurus (Bovine)
Purity	>85% (SDS-PAGE)
Sequence	GF NPQDYLNVTN VHLFKERWDS NKVDHHTDKY SNDKLIVRRG QSFYIQIDFN RPYDPTRDLF RVEYVIGLYP QENKGTYIPV PLVSELQSGK WGAKVVMRED RSVRLSVQSS ADCIVGKFRM YVAVWTPYGV IRTSRNPETD TYILFNPWCE EDAVYLEN
Source	E.coli
Target Names	F13A1
Protein Names	Recommended name: Coagulation factor XIII A chain Short name= Coagulation factor XIIIa EC= 2.3.2.13 Alternative name(s): Protein-glutamine gamma-glutamyltransferase A chain Transglutaminase A chain
Expression Region	39-198
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	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.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the

	contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.
Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.