Product Data Sheet

Product number **T062**
Revision number RN3.0

Product Name	Dog blood coagulation Factor XIII-A_2 (clFXIII, A subunit)
Synonym	Recombinant Fibrin stabilizing factor, protein-glutamine-γ-glutamyltransferase
Source	Recombinantly produced in insect cells
Quantity	200 µg
Purity	> 95% [by SDS-PAGE]
Molecular Weight	83 kDa (monomer); 166 kDa (homodimer)
Description	Recombinant dog Factor XIII is a homodimer (a_2) composed of two chains held together by non covalent bonds. After activation of the zymogen by Thrombin and Ca^{2+} to its active form (a^*_2, Factor XIIIa), Factor XIIIa catalyzes the formation of covalent bridges (ε-(γ-glutamyl) lysine bonds) between fibrin units to increase the elasticity of the clot network. The resulting cross-linked fibrin is insoluble and resistant to lysis.
Application	clFXIII catalyzes acyl transfer reactions from glutamin residues in proteins or peptides to primary amines, e. g. the formation of ε-(γ-glutamyl) lysine bonds between proteins by transferring the acyl group of a peptide-bound glutamine residue to the primary amino group of a peptide-bound lysine residue.
Appearance	White lyophilized solid.
Storage	Storage for several months is possible at ≤ - 20°C. ***Delivery is possible at ambient temperature***
Reagents	The recombinant dog Factor XIII is lyophilized from 20 mM Tris-HCl pH 7.5, 150 mM NaCl, 1 mM EDTA, 1 mM DTT. Sample contains maltodextrin.
Reconstitution	Add the volume of H_2O the protein is lyophilized from (see Certificate of Analysis) to the vial of lyophilized powder. Rotate vial gently until solid dissolves. After reconstitution the solution should be stored frozen in working aliquots. Keep cooled on ice for short term storage.
Related products	A101 FXIII-Assay Substance, Abz-NE(CAD-DNP)EQVSPLTLLK-OH F001 FXIII-Assay Kit T027 Coagulation factor XIII, purified from human plasma T007 Human blood coagulation Factor XIII, recombinant T101 1,3,4,5-Tetramethyl-2[(2-oxo-propyl)thio] imidazolium chloride A016 Polyclonal antibody to human blood coagulation factor XIII (A-subunit)
Reference(s)	Heil et al., Thromb. Res. 2013, 131, e214–e22
Release date	23 December 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.