

Product number T161
Revision number RN2.0

Product Name	Cynomolgus blood coagulation factor XIII-A ₂ , recombinant (mfFXIII-A)
Source	Recombinantly produced in insect cells
Quantity	200 µg
Background info	Transglutaminases are a family of enzymes that catalyze the posttranslational modification of proteins by inserting an isopeptide bond within or between polypeptide chains. These enzymes catalyze the acyl transfer reaction between the γ -carboxyamido groups of peptide-bound glutamine residues and a variety of primary amines, particularly the ϵ -amino group of lysine. The resulting crosslink is of great significance, since it is highly stable and also resistant to mechanical and proteolytic degradation.
Molecular weight	84 kDa (monomer), 168 kDa (homodimer)
Specific Activity	> 2000 U/mg [Activity is determined by measuring the rate of fluorescence enhancement after mfFXIII-A-catalyzed monodansylcadaverine-incorporation into N,N-dimethylated casein according to Lorand <i>et al.</i> , Anal. Biochem. 44 (221-231). 1 U is defined as the increase in fluorescence intensity of 1 a.u./min (measured on a Cary eclipse fluorescence spectrophotometer, Varian; λ_{ex} = 332 nm, λ_{em} = 500 nm; band filter = 5 nm; detector strength = 600 V; temperature = 37°C, assay volume = 1 ml)].
Application	Labelling, immobilisation, conjugation and modification of proteins.
Appearance	White lyophilized solid.
Formulation	The purified transglutaminase is lyophilized from 20 mM Tris-HCl pH 7.5, 150 mM NaCl, 1 mM DTT, 1 mM EDTA, contains maltodextrin.
Purity	> 95 % by SDS-PAGE under reducing conditions
Reconstitution	Add at least the volume of H ₂ O 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.
Storage	Store at -20°C in working aliquots. Repeated freezing and thawing is not recommended. <i>Delivery is possible at ambient temperature</i>
Release date	30 December 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.