

Product number **T114**
Revision number **RN2.0**

Product Name	Blood Coagulation Factor XIII-Microassay Kit, colorimetric (450 nm) Kit produced and Developed by CovalAb, France
Synonym	FXIII-CovTest
Background	<p>The Blood Coagulation Factor XIII-Microassay Kit uses biotinylated F11 peptide (Biotin-pepF11) as the first substrate (amine-acceptor/acyl-donor) and spermine as second substrate (amine-donor/acyl-acceptor).</p> <p>Usually samples contain the pro-enzyme (FXIII) and a pre-treatment with thrombin (T056) to obtain activated FXIII (FXIIIa) could be necessary to measure the activity using Blood Coagulation Factor XIII-Microassay Kit. After this activation step, samples suspected of containing activated FXIIIa are incubated with calcium, dithiothreitol (DTT), and Biotin-pepF11 in the wells of microtiter plates to which spermine had been covalently coupled, previously. In the presence of FXIII spermine is incorporated into the gamma-carboxamide of the glutaminy residue of the biotin-pepF11 to form a biotin-pepF11-gamma-glutamyl spermine.</p> <p>The system is coupled to Streptavidin labelled peroxidase (SAv-HRP). SAv-HRP is revealed using H₂O₂ as HRP substrate and tetramethyl benzidine as electron acceptor (chromogen).</p>
Application	Colorimetric measurement of transglutaminase activity, optimized for Factor XIII
Reagents in the kit	Microtiter strips with covalently bound spermine DTT EDTA (Negative Control) Reaction Buffer (Biotin-pepF11/CaCl ₂) Enzyme Tracer (SAv-HRP) Wash Buffer 10X Diluent Buffer 10X HRP Substrate Blocking Reagent
Equipment	Microplate reader capable of measuring absorbance at 450 nm. Pipettes, multi-channel pipette, and pipette tips. Ultra-pure or deionized water. Squirt bottle, manifold dispenser, or automated microplate washer.
Storage	<p>The kit is shipped on ice. Upon arrival, the Reaction Buffer (R3) and Enzyme Tracer (R4) should be stored at -20°C. All the other components of the kit should be kept at +4°C.</p> <p>When stored properly, these stock solutions are stable for at least 24 months.</p>
Related products	T056 Human alpha thrombin, highly active F001 FXIII-Assay Kit A101 FXIII-Assay Substance, Abz-NE(CAD-DNP)EQVSPLTLK-OH T027 Human blood coagulation Factor XIII B010 Blood coagulation FXIII-substrate-peptide F11KA
Release date	29 December 2021
NOTE	INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.