Product Name: Blood Coagulation Factor XIII-Microassay Kit, colorimetric (450 nm)

Kit produced and Developed by CovalAb, France

Synonym: FXIII-CovTest

Background: 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).

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 glutaminyl residue of the biotin-pepF11 to form a biotin-pepF11-gamma-glutamyl spermine. 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).

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/CaCl₂)
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: 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.

When stored properly, these stock solutions are stable for at least 24 months.

Related products:
- T056  Human alpha thrombin, highly active
- F001  FXIII-Assay Kit
- A101  FXIII-Assay Substance, Abz-NE(CAD-DNP)EQVSPLETLLK-OH
- T027  Human blood coagulation Factor XIII
- B010  Blood coagulation FXIII-substrate-peptide F11KA

Release date: 23 December 2013

NOTE: INTENDED FOR RESEARCH USE ONLY, NOT FOR USE IN HUMAN, THERAPEUTIC OR DIAGNOSTIC APPLICATIONS.