ANIARA
DIAGNOSTICA INC

YOUR LAB DESERVES A PARTNER.
Not a vendor.

FACTOR XIII · FIBRIN-STABILIZING FACTOR · THE FINAL COAGULATION ENZYME

Factor XIII — the factor your *clotting screen can't see.*

FXIII is a **transglutaminase** that cross-links fibrin into a mechanically stable, lysis-resistant clot — the last step of coagulation. Because the clot still **forms,** FXIII deficiency leaves **PT, aPTT, thrombin time and fibrinogen entirely normal:** it is invisible to the routine screen. The ISTH-SSC therefore recommends a **quantitative FXIII activity assay as the first-line test.** BIOPHEN™ Factor XIII measures that activity directly.

THE FIRST-LINE ASSAY — QUANTITATIVE FXIII ACTIVITY

CHROMOGENIC · FXIII ACTIVITY

BIOPHEN™ Factor XIII

Quantitative FXIII activity in citrated plasma by a **spectrophotometric ammonia-release** (transglutaminase) method: FXIII is activated by thrombin and Ca^{2+}, cross-links an amine donor onto a glutamine substrate, and the released ammonia drives an **NADH-coupled reaction read at 340 nm** — the rate is proportional to FXIII activity. A blank correction is used for accuracy in the **low activity range.** Automatable on standard analyzers.

A227005
Kit
$622
RUO

SCREENING & SUBSTRATE

Factor XIII Deficient Plasma — immunodepleted substrate and low reference for FXIII activity assays and the classic clot-solubility screen.

ADP200K · 6×1 mL · RUO · $440

CALIBRATION

Calibrate with the **BIOPHEN™ Plasma Calibrator,** whose assigned values span **FII–FXIII;** run the deficient plasma as a low reference and a normal control plasma for QC.

A222101 · calibrator · (A223201 normal control)

WHY FXIII HIDES FROM THE ROUTINE SCREEN

THE CLOT STILL FORMS
FXIII acts after fibrin polymerizes — so PT, aPTT, thrombin time and fibrinogen all read normal even in severe deficiency.

WHAT FAILS IS CROSS-LINKING
Without FXIIIa, fibrin γ-chains and α2-antiplasmin aren't ligated; the clot is mechanically weak and lyses early.

SO YOU MUST TEST FXIII DIRECTLY
A quantitative activity assay is ISTH-SSC first-line; the older clot-solubility screen misses partial deficiency.

WHERE FACTOR XIII IS MEASURED

- Congenital FXIII deficiency
- Acquired / immune-mediated
- Surgical-bleeding investigation
- Wound-healing research
- Pregnancy-loss investigation
- FXIII concentrate monitoring

SELECTED REFERENCES The BIOPHEN™ Factor XIII kit (HYPHEN BioMed), a spectrophotometric ammonia-release activity assay, used for ISTH-SSC–based diagnosis and classification of FXIII deficiency — *Orphanet J. Rare Dis.* 2019;14:191. · ISTH-SSC: a quantitative functional FXIII activity assay that detects all forms of FXIII deficiency should be the first-line screening test — Kohler et al., *J. Thromb. Haemost.* 2011;9(7):1404–6. · For ammonia-release assays, an iodoacetamide blank is recommended to avoid overestimation in the low activity range — *Int. J. Lab. Hematol.* 2016.

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