
Lab Dept: Coagulation

Test Name: VWD DIAGNOSTIC PANEL

General Information

Lab Order Codes: VWN

Synonyms: F8, Factor 8, Factor VIII, Von Willebrand Disease, Von Willebrand Factor

CPT Codes: 85240 – Factor VIII Activity
0279U – VWF Collagen III Binding
85397 – VWF GPIbM Activity
85246 – VWF Antigen
0283U – VWD Type 2B Binding (if appropriate)
0284U – VWD Type 2N Binding (if appropriate)
0281U – VWF Propeptide Antigen (if appropriate)
85247 – VWF Quantitative Multimer (if appropriate)

Test Includes: For patients 6 months and older, the reflexive algorithm always includes: FVIII Activity, VWF Antigen, VWF:GPIbM Activity, and VWF Collagen III Binding. Reflex testing may include: VWD Type 2B Binding, VWD Type 2N Binding, VWF Propeptide Antigen, and/or VWF Quantitative Multimer.

For patients < 6 months of age, Reflexive algorithm always includes: FVIII Activity, VWF Antigen, VWF GPIbM Activity (performed by ELISA), and VWF Collagen III Binding. Reflex testing may include: VWD Type 2B Binding, VWD Type 2N Binding, VWF Propeptide Antigen, and/or VWF Quantitative Multimer.

Logistics

Test indications:

- Detect quantitative or qualitative defects of VWF and related deficiency of factor VIII activity.
- Differentiate subtypes of variant VWD.
- Direct optimal utilization of confirmatory genetic testing for variant VWD.

Lab Testing Sections: Coagulation - Sendouts

Referred to: Versiti - Blood Center of Wisconsin (VRST Test: 1850)

Phone Numbers: MIN Lab: 612-813-6280
STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 14 days, performed Monday – Saturday

Special Instructions: N/A

Specimen

Specimen Type: Whole blood

Container: Light Blue Top (Na Citrate)

Draw Volume: 18 mL (Minimum: 9 mL) blood

Processed Volume: 6 mL (Minimum: 3 mL) plasma

Collection:

- Patients with a hematocrit level >55% must have a special tube made to adjust citrate concentration. Contact lab for a special tube.
- Do not use the first tube drawn.
- Invert tubes gently at least 4 times to mix.
- Transport immediately to the laboratory at room temperature.

Special Processing: Lab Staff: Double spin and transfer plasma into six (6) aliquot tubes with 1 mL each (Minimum: Six (6) aliquots of 0.5 mL each) plasma per tube. Freeze at -70 degree °C within 4 hours of collection. Ship with dry ice.

Patient Preparation: No Heparin for two days prior to testing.

Sample Rejection: Unlabeled or mislabeled specimens; improper tube; hemolysis; inappropriate transport temperature.

Interpretive

Reference Range: See interpretive report

Critical Values: N/A

Limitations:

- VWF and Factor VIII are acute phase reactants. Levels will be elevated postoperatively, with inflammation, stress, physical activity, pregnancy, estrogen therapy, and hyperthyroidism.
- VWF levels may be reduced as a consequence of improper sample handling.
- For some cases of type 2B VWD, VWF GPIbM Activity will report a higher activity level than VWF Ristocetin Cofactor Activity. Therefore, VWF GPIbM Activity results should be interpreted cautiously when monitoring perioperative therapy in patients with type 2B VWD.

Methodology: Factor VIII Activity - Clotting
VWF Collagen III Binding - ELISA
VWF GPIbM Activity – ELISA for patients <6 mo., Innovance for patients 6 mo. and older

VWF Antigen – ELISA

Possible Reflex Tests:

VWD 2B Binding – Electrophoresis

VWD 2N Binding – ELISA

VWF Propeptide Antigen – ELISA

VWF Multimer - Electrophoresis

References:

[Versiti \(formerly Blood Center of Wisconsin\)](#) November 2024

Updates:

02/01/2022: Initial entry

07/17/2023: Updated minimum volume processing instructions, updated link to reference lab site, added temporary note regarding delayed turnaround time.

11/13/2024: Updated display name, reference lab test code, and methodology based on patient age for one test in the battery.