
Lab Dept: Coagulation

Test Name: VON WILLEBRAND MULTIMERS

General Information

Lab Order Codes: VONMU

Synonyms: Polymers, von Willebrand Factor; von Willebrand CIEP; vWD Multimers

CPT Codes: 85247 – Factor VIII, von Willebrand factor, multimeric analysis

Test Includes: Interpretive report of findings regarding von Willbrand related testing.

Logistics

Test Indications: Resolving discrepancies when results of complementary laboratory tests (e.g., F8A / Coagulation Factor VIII Activity Assay, Plasma; VWACT / von Willebrand Factor Activity, Plasma; and VWAG / von Willebrand Factor Antigen, Plasma) are abnormally low or discordant

Subtyping von Willebrand disease (VWD) (primarily identify variants of type 2 VWD)

Aiding in determining appropriate treatment

Identifying variants of type 2 VWD that have fewer of the largest multimers, have unusually large multimers, or have qualitatively abnormal "bands" that indicate an abnormal von Willebrand factor structure

Lab Testing Sections: Coagulation - Sendouts

Referred to: Mayo Clinic Laboratories (MML Test: VWFMS)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Daily, 24 hours

Turnaround Time: 7 - 14 days; performed Monday through Thursday

Special Instructions: Indicate on request from when specimen is drawn from a line or a heparin lock. See [Collection](#) and [Patient Preparation](#). Specimen should be collected prior to coagulation factor replacement therapy.

Specimen

Specimen Type:	Whole blood
Container:	Light Blue top (Buffered Na Citrate 3.2%) tube
Draw Volume:	2.7 mL blood in a 3 mL tube
Processed Volume:	1 mL (Minimum 0.5 mL) plasma
Collection:	Routine venipuncture or line draw. Fill the tube completely. Mix thoroughly by gentle inversion. Deliver immediately to the laboratory.
Special Processing:	<p>Lab Staff: Centrifuge specimen, remove plasma, spin plasma again and place 1 mL (minimum: 0.5 mL) of platelet-poor plasma into a plastic vial. (Glass vials are not acceptable) Label appropriately and freeze specimen. Forward promptly. Mayo Coag Specimen Handling Guidelines</p> <p>Specimen stable frozen for 42 days.</p> <p>Results for Ristocetin Cofactor and von Willebrand Factor Antigen may be required. If not performed, consult Mayo whether an additional 0.5 mL of plasma in a separate plastic vial would be needed.</p>
Patient Preparation:	Patient must not be receiving Coumadin® or heparin. Fasting is preferred.
Sample Rejection:	Improper tube; clotted samples; underfilled tubes; overfilled tubes; specimens over two hours old; mislabeled or unlabeled specimens

Interpretive

Reference Range:	<p>Interpretive report</p> <p>Note: The plasma vWF multimer analysis is a qualitative visual assessment of the size spectrum and the banding pattern of vWF multimers.</p>
Critical Values:	N/A
Limitations:	vWF multimer analysis is not useful if the following tests are normal: Factor VIII Activity Assay, Ristocetin Cofactor, von Willebrand Factor Antigen or when the vWF ristocetin cofactor:vWF antigen ratio is greater than or equal to 0.7.
Methodology:	Agarose gel electrophoresis/infrared dye-labeled antibody detection.
References:	Mayo Clinic Laboratories December 2024

Updates:

5/24/2010: Tubing patient specimens is no longer prohibited.

12/27/2024: Corrected lab test code; updated turnaround time, test indications, performance days, patient preparation, test limitations.