
Lab Dept: Coagulation

Test Name: VON WILLEBRAND ANTIGEN

General Information

Lab Order Codes: VONAM

Synonyms: Factor VIII:Ag; Factor VIII Related Antigen; VIII:Ag; vWF Ag; Factor VIII Activity; von Willebrand Factor Immunodeficiency Assay

CPT Codes: 85246 – Factor VIII vW antigen factor

Test Includes: Von Willebrand antigen reported as a %.

Logistics

Test Indications: Useful for diagnosis (or exclusion) of von Willebrand's disease or trait.

Lab Testing Section: Coagulation (Minneapolis Campus)

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Twice Weekly (Tuesday and Friday)

Turnaround Time: 3 – 5 Days

Special Instructions: See [Patient Preparation](#)

Deliver immediately to the laboratory at room temperature. Indicate when specimen is drawn from a line or a heparin lock.

Specimen

Specimen Type: Whole blood

Container: Light Blue (Buffered Na Citrate 3.2%) top tube

Draw Volume: 2.7 mL blood

Processed Volume: 0.9 mL plasma

Collection:

- A clean venipuncture is essential, avoid foaming.
- Entire sample must be collected with single collection, pooling of sample is unacceptable.
- Capillary collection is unacceptable.
- Patient's with a hematocrit level >55% must have a special tube made to adjust for the hematocrit; contact lab for a special tube.
- Mix thoroughly by gentle inversion. Deliver immediately to the laboratory at room temperature via courier or pneumatic tube.

Off campus collections:

- Must be tested within 4 hours.
- Do not refrigerate.
- If not received in our lab within 4 hours of collection, sample must be centrifuged and *platelet-poor plasma removed from cells and transferred to an aliquot tube being careful not to disturb the cell layer. Centrifuge the plasma a second time and transfer into a clean aliquot tube being careful not to include any residual platelets on the bottom of the tube. Freeze at -20°C and deliver to the lab on dry ice within 2 weeks.

***Validation of your lab's centrifuge for platelet poor plasma is required.**

Special Processing:

Lab Staff: All testing will be performed in Minneapolis.

St. Paul Lab: Send whole blood specimens to Mpls for processing via courier. Must be processed within 4 hours of collection. Contact Mpls prior to sending.

Mpls Lab: Spin sample collected in blue top tube for 5 minutes on the Stat Spin centrifuge, remove plasma and transfer to a 4 mL BCS sample cup. Spin remaining plasma again for 5 minutes in the Stat Spin Centrifuge. Transfer plasma to a new BCS sample cup for analysis leaving approximately 200 mcL in the bottom of the original cup to discard.

Patient Preparation:

No Heparin for 2 days prior to testing.

Sample Rejection:

Clotted sample; underfilled tube; overfilled tube; mislabeled or unlabeled specimens

Interpretive

Reference Range:

Age:	Range (%):
Full Term Infants	
Day 1	50 – 207%
Day 5	50 – 254%
Day 30	50 – 246%

Day 90	50 – 206%
Day 180	50 – 197%
Childhood	
1 – 5 years	60 – 120%
6 – 10 years	44 – 144%
11 – 16 years	46 – 153%
Adult	50 – 158%

Critical Values:

N/A

Limitations:

This test measures the quantity of von Willebrand von Willebrand Antigen, factor protein not functional activity. Antigen and activity values are increased in patients who are pregnant or are taking oral contraceptives.

Methodology:

Measurement of vonWillebrand's factor protein i.e., antigen by the immuno-turbimetric method. Patient dilutions are compared to a known set of standard dilutions and a percentage is determined.

References:

Harmening DH (1997) Clinical Hematology and Fundamentals of Hemostasis

Updates:

5/24/2010: Tubing patient specimens is no longer prohibited.
12/14/2010: Updated processing information.
9/15/2014: Added Off Campus collection info.