
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

Phone Numbers: MIN Lab: 612-813-6280

STP Lab: 651-220-6550

Test Availability: Testing is performed at the Minneapolis Laboratory only.

Turnaround Time: 3 – 5 Days (Performed on **Tuesdays and Thursdays only**)

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: 1.8 mL blood (in 2 mL tube) or 2.7 mL blood (in a 3 mL tube).

Processed Volume: Minimum 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: Centrifuge in Stat Spin for 5 minutes or 10 minutes at 3000 rpm at room temperature. For primary tube testing, leave plasma on cells OR remove plasma and place in a 4 mL plastic cup; allow for 100 mL of dead-space.

Test within:

- Four (4) hours when stored in the capped tube above the packed cells 18 to 24°C.
- Four (4) hours as plasma that has been separated from cells by centrifugation when stored 2 to 8°C or 18 to 24°C.
- Two (2) weeks when stored -20°C.
- Six (6) months when stored -70°C (rapidly frozen).
- Plasma must be frozen if testing cannot be completed within four (4) hours.
- Frozen plasmas are thawed at 37°C for three (3) minutes, test immediately.

Patient Preparation:

Patient should not be on Heparin therapy for at least 2 days prior to testing.

Sample Rejection:

Clotted sample; under-filled 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 von Willebrands factor protein i.e., antigen by the immuno-turbidimetric 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.

7/18/23: Updated special processing instructions. Testing performed in Minneapolis only Tuesday and Friday.