

# Factor 8 Associated, Von Willebrand factor

## General:

Synonym: factor 8 associated protein, v. Willebrand factor, v. Willebrand antigen. **V. Willebrand's disease:** constitutional thrombopathy, angiohemophilia, vascular hemophilia. The v. Willebrand factor consists of a set of macromolecules and conveys the adhesion of thrombocytes to collagenic fibers of the subendothelium in vessel injuries. vWF influences the platelet aggregation. The vWF circulates in blood as a complex bound to the plas-matic coagulation factor VIII. vWF is synthesized in endothelial cells and megakaryocytes, while factor VIII is synthesized in the liver. Both glycoproteins are found in plasma.

The clinical picture belongs to the rare combined deficiency syndromes and is autosomal dominantly inherited, both genders can be affected. The heterozygote frequency is as with hemophilia (1:10000). The platelet adhesiv-ity is decreased when – simultaneously - more vessels are damaged. The patients are less inclined to spontaneous bleedings, only homozygous pa-tients show a severe course (rare).

**Diagnosis:** Extended bleeding time, factor VIII often normal(!) to decreased, also factor IX can be decreased to < 50%, PTT - normal to extended, Rum-pel-Leede - positive.

**Indication:** Suspicion of Morbus-Willebrand, unclear PTT-extension, hematomas, epistaxis, gum bleeding, menorrhagias, posttraumatic or postoperative bleedings, postpartal bleedings, extended bleeding time.

**Material:** 3.0 ml citrate plasma, **frozen**.

TAT: 7-10 days\*

Method: TURB

Units: %

Ref.- range: see report

- **vWF activity (previously known as factor 8 ristocetin cofactor)**

Material: 3.0 ml citrate plasma frozen.

TAT: 7 - 10 days\*

Method: TURB

Units: %

Ref.- range: see report

- **vWF, multimer analysis (Factor 8)**

General:

Von Willebrand Factor (vWF) in normal plasma is composed of a series of high molecular multimers, ranging in size from  $8 \times 10^5$  to over  $15 \times 10^6$  Daltons.

The multimer analysis is a highly sensitive and rapid clinical method for the visualization of the multimeric structure of von Willebrand Factor in plasma and platelets. This method distinguishes the different types of von Willebrand disease. It also allows visualization of the unusually high molecular weight multimers present in platelets.

Indication: Detected factor 8 deficiency, classification of vWD

Material: 6.0 ml citrate blood

TAT: 3 weeks\*

Method: GEL (Gel Electrophoresis)

Note: 2 tubes ( full citrate blood and plasma required)

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>