



A Disintegrin and Metalloprotease with Thrombospondin Motifs

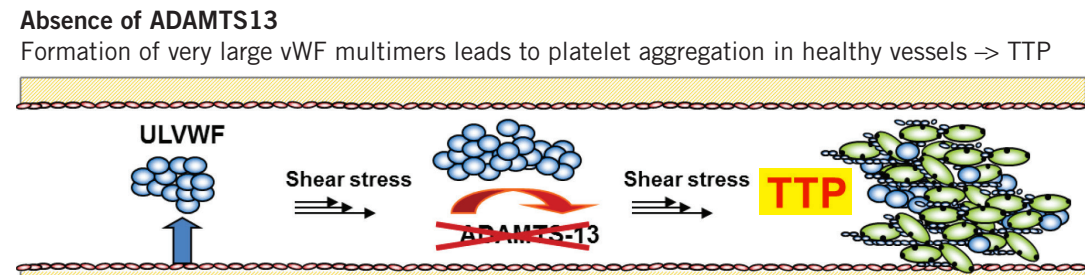
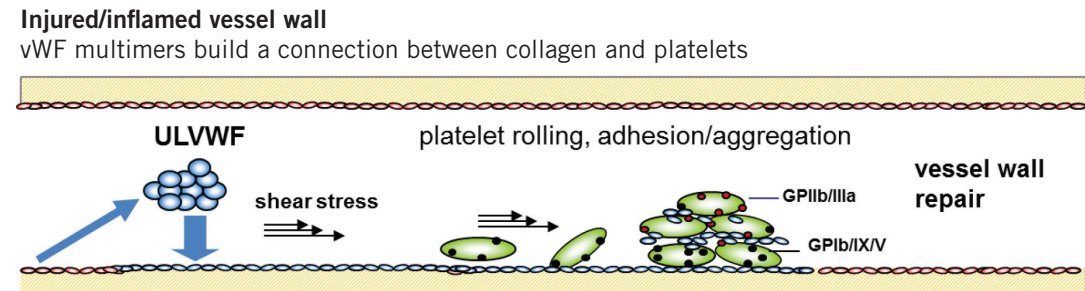
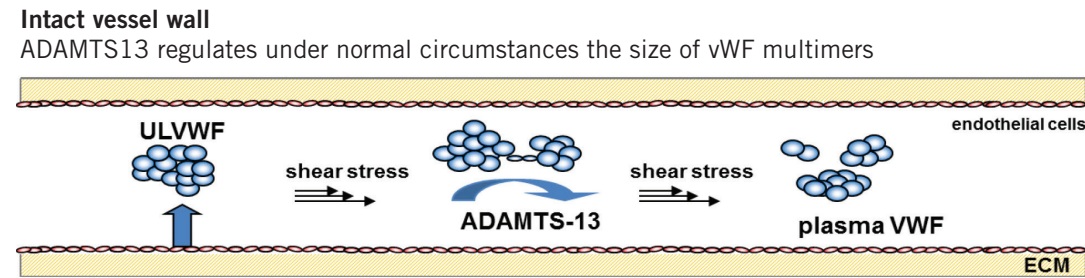
**Background:**

- ADAMTS13 is a plasma protein with low concentration (5 nmol/L) which cleaves very specific large vWF multimers under laminar flow conditions.
- A functional defect of ADAMTS13 leads to presence of higher molecular weight forms of vWF in plasma and thus to increased platelet aggregation.

**Main cause for thrombotic thrombocytopenic purpura (TTP):**

- Thrombotic microangiopathy (TMA) is a pathologic state which results in thrombosis in capillaries and arterioles, due to an endothelial injury. The classic TMAs are atypical hemolytic uremic syndrome (aHUS) and TTP.
- TTP occurs at very low ADAMTS13 activity concentration.

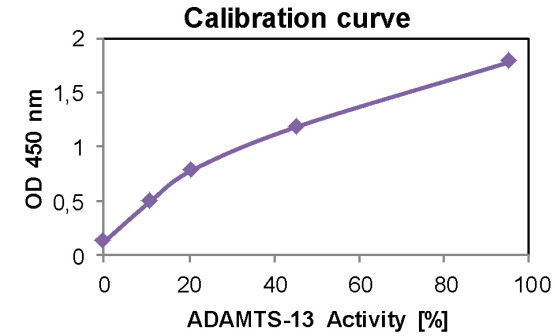
**ADAMTS13 Function**



Presentation Dr. Scheiflinger, Laibach June 2004

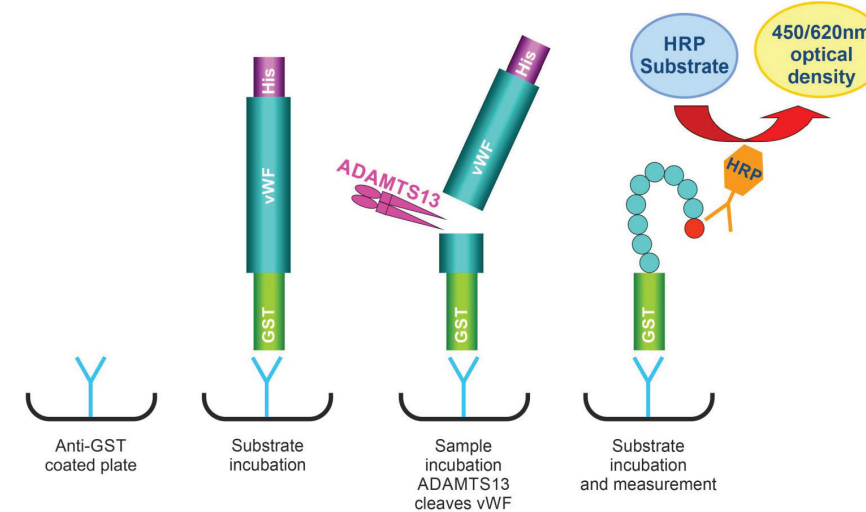
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Chromogenic ELISA for the determination of ADAMTS13 activity

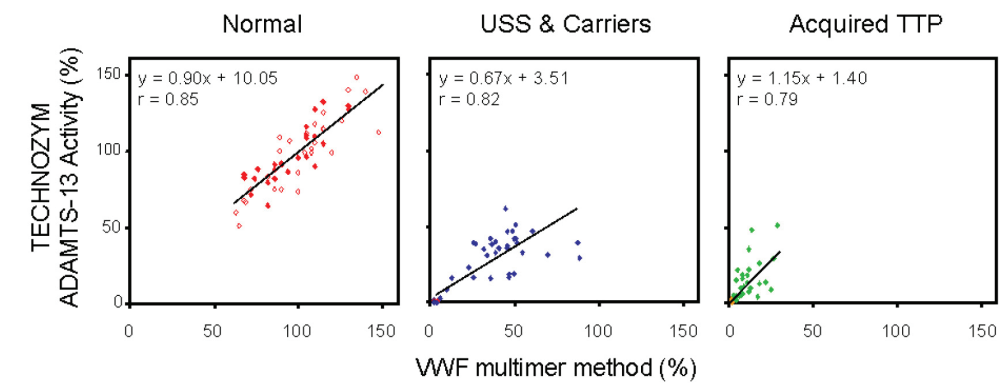


- High sensitivity for ADAMTS13 activity down to 0.01 IU/ml
- Short assay time (3 h)
- Calibrators and Controls are traceable to WHO 1st international Standard ADAMTS13 plasma (NIBSC code 12/252)
- No interference by bilirubin, hemolytic or lipemic samples
- High precision with intra-assay CVs <5% and inter-assay CVs <9%
- Can be used for ADAMTS13 Inhibitor determination in Bethesda assay

**Test Principle**



**Correlation**



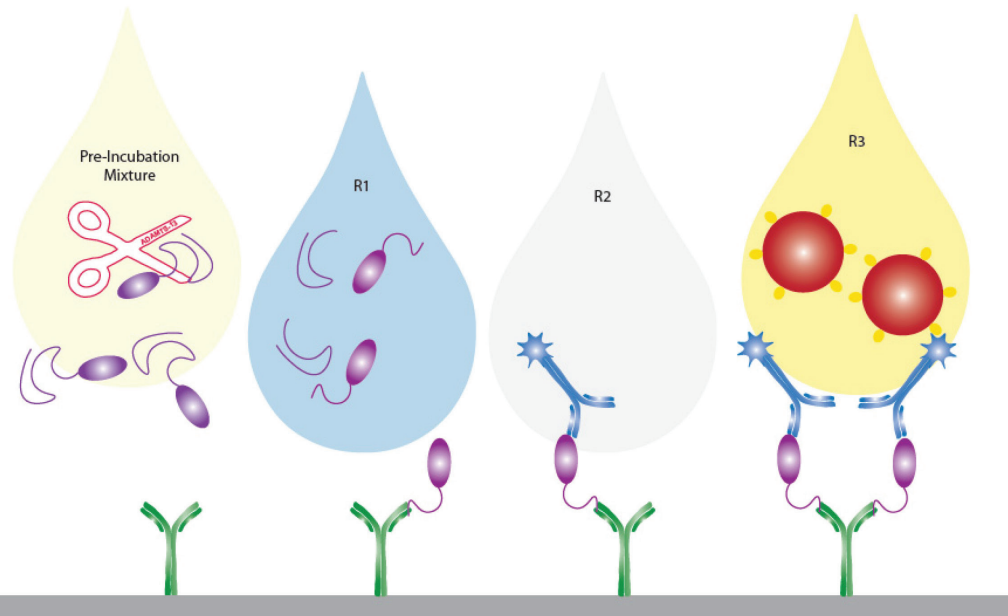
Good correlation in ADAMTS13 activity of different groups of samples

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## Semi-quantitative flow through assay for the determination of ADAMTS13 activity levels

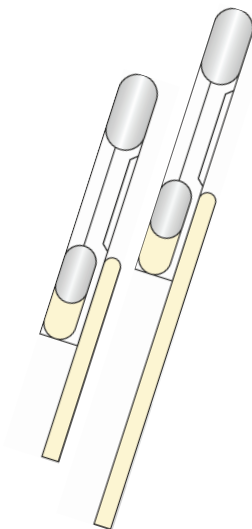
The TECHNOSCREEN® ADAMTS13 is a semiquantitative flow through assay for the determination of ADAMTS13 activity levels in human citrated plasma. This assay is intended as a screening tool for estimating ADAMTS13 activity. Useful for selecting plasmas for ADAMTS13 research.

Test plasma is incubated with a vWF fragment. ADAMTS13 specific cleavage of the vWF is then detected with a cleavage site specific antibody by the amount of color development. The amount of cleavage directly correlates to the ADAMTS13 activity level in the plasma sample.

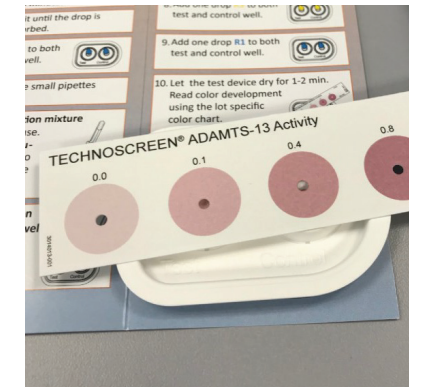
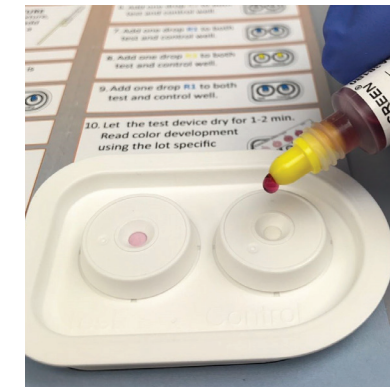
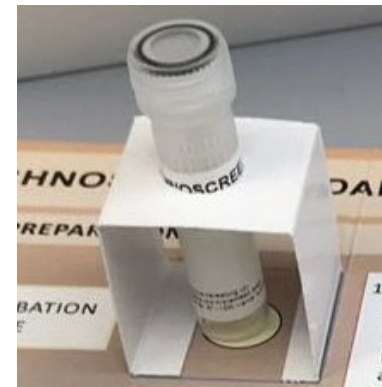


### Quick & Easy

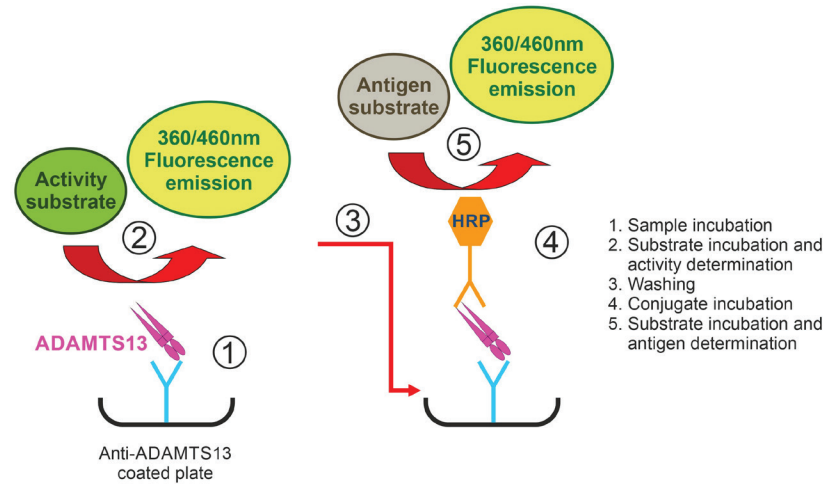
- Short instruction with a pre-incubation tube holder included in every package
- Large and small pipettes for the pre-incubation mixture included
- Easy test procedure for rapid results with ready to use reagents
- No additional instrument required
- Results in 30 minutes
- For the interpretation of the results a color chart is included in the kit



TECHNOSCREEN® ADAMTS13 Activity		technoclone	
PREPARATION		TEST PROCEDURE	
PRE-INCUBATION TUBE		1. <b>PRE-INCUBATION MIXTURE</b> For the pre-incubation mixture, use the <b>large pipette</b> and add <b>300µl of plasma sample</b> to a fresh pre-incubation tube and mix by inverting min. 3x.	
	<b>R1</b>	2. Incubate for <b>20 minutes</b> . For all steps wait until the drop is completely absorbed.	
	<b>R2</b>	3. Add one drop <b>R1</b> to both test and control well.	
	<b>R3</b>	4. Mix the pre-incubation mixture by inverting min. 3x before use. Add <b>60µl pre-incubation mixture to the test well</b> using the <b>small pipette</b> .	
		5. Add 60µl pre-incubation mixture to the control well using a fresh <b>small pipette</b> .	
		6. Add one drop <b>R2</b> to both test and control well.	
		7. Add one drop <b>R1</b> to both test and control well.	
		8. Add one drop <b>R3</b> to both test and control well.	
		9. Add one drop <b>R1</b> to both test and control well.	
		10. Let the test device dry for 1-2 min. Read color development using the lot specific color chart.	



Fluorogenic ELISA for the determination of ADAMTS13 antigen and activity

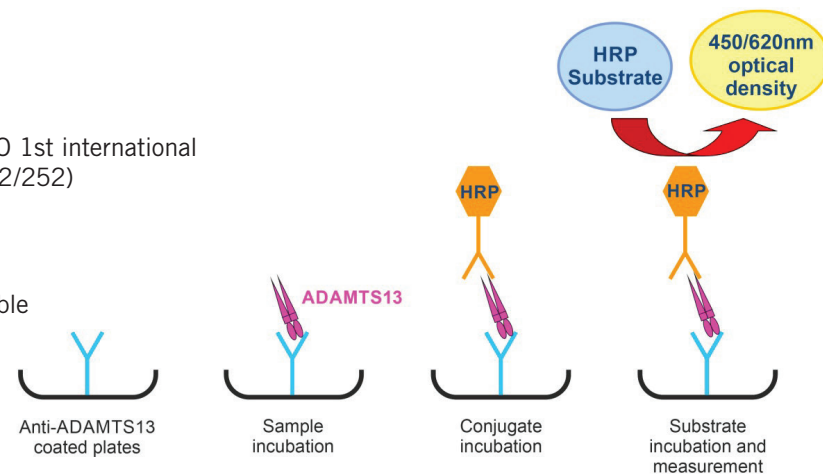


Activity and Antigen Determination

- Fluorogenic substrate
- Incubation at room temperature
- Calculation tool available for antigen and activity
- Applications available for various fluorogenic readers
- No sample predilution
- Calibrators and Controls are traceable to WHO 1st international Standard ADAMTS13 plasma (NIBSC code 12/252)

Chromogenic ELISA for determination of ADAMTS13 antigen concentration

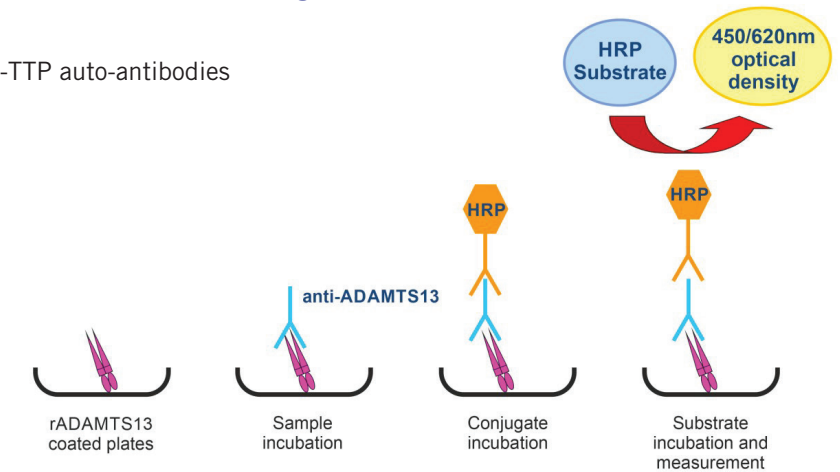
- Measuring range 0.0 - 1.0 U/ml
- LOD 0.012 U/ml
- High linearity
- Calibrators and Controls are traceable to WHO 1st international Standard ADAMTS13 plasma (NIBSC code 12/252)
- Fast result within approximately 3.5 hours
- Detection is independent of enzyme activity
- Manual or automated test applications available



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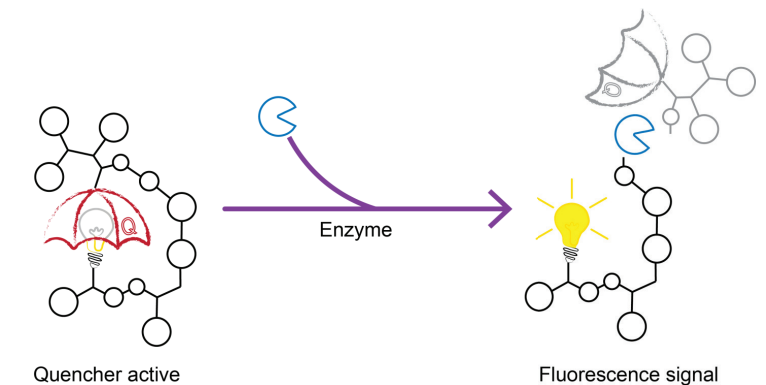
Chromogenic ELISA for determination of antibodies directed against ADAMTS13

- Differentiation between TTP and non-TTP auto-antibodies
- Measuring range 2 - 104 U/ml
- LOD 1.68 U/ml
- High specificity
- Fast result within about 3 hours
- Manual or fully automated testing



Quenching technology is based on high sensitive fluorescence measurement. Different ways of quenching methods, like dynamic quenching such as fluorescence resonance energy transfer (FRET), or static quenching which can be used.

The **TECHNOFLUOR ADAMTS13 Activity** test uses FRET technology. Due to the quenching reaction the donor fluorophore is activated, and transfers its energy to the quenching molecule which is emitting light. The measured fluorescence signal is proportional to the amount of VWF cleaved by ADAMTS13.



Time and Cost Saving

- Save valuable plasma and financial resources

Easy and Fast

- Fully automated ADAMTS13 activity result **in less than 30 minutes**
- Run ADAMTS13 activity sample as easily as a routine coagulation test
- Quenching module using parameters can be run in parallel to all other parameters including TGA
- Stable lot calibration curve with a high linearity

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