

technoclone



TECHNOZYM[®] ADAMTS13

Chromogenic and fluorogenic ELISAs for determination of ADAMTS13 antigen and inhibitor concentration as well as ADAMTS13 activity in human plasma



Your partner for **ADAMTS13**

TECHNOZYM® ADAMTS13

A disintegrin and metalloprotease with thrombospondin motifs

- ADAMTS13 is a plasma protein with low concentration (5 nmol/L) which cleaves very specific large vWF multimeres 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 aquired hemolytic uremic syndrome (aHUS) and TTP:

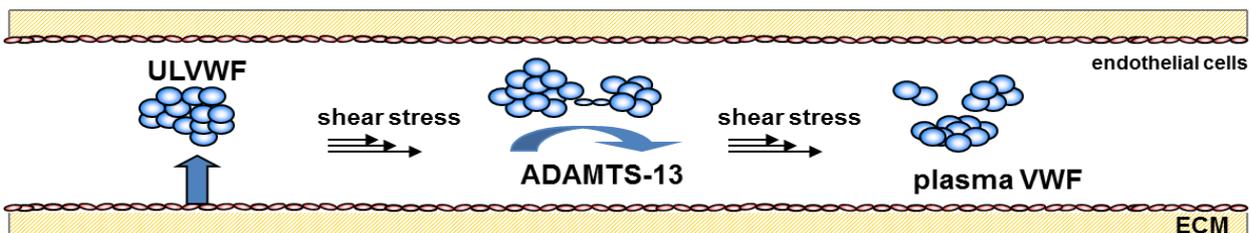
≤ 5 % ADAMTS-Activity ≥ 5 % ADAMTS-Activity
 TTP aHUS

ADAMTS13 FUNCTION

according to Tsai H-M. Int. J. Hematol. 2010;91:1-9

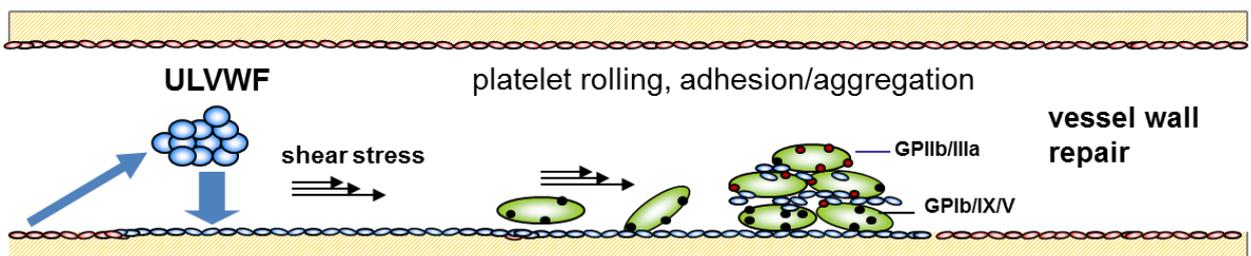
- Intact vessel wall

ADAMTS13 regulates under normal circumstances the size of vWF multimers



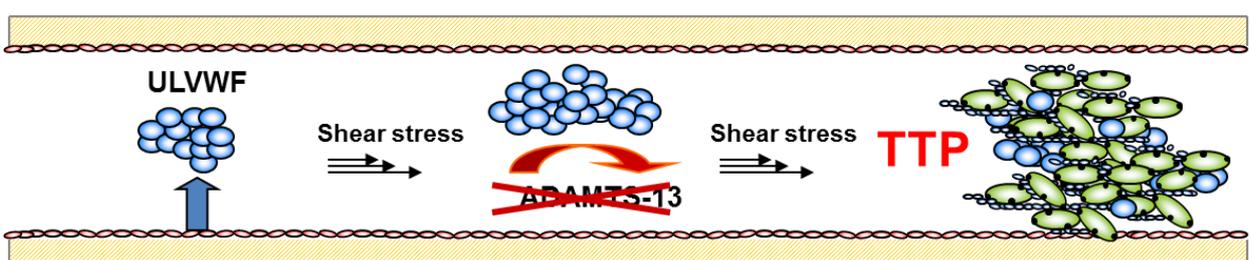
- Injured/inflamed vessel wall

vWF multimers build a connection between collagen and platelets



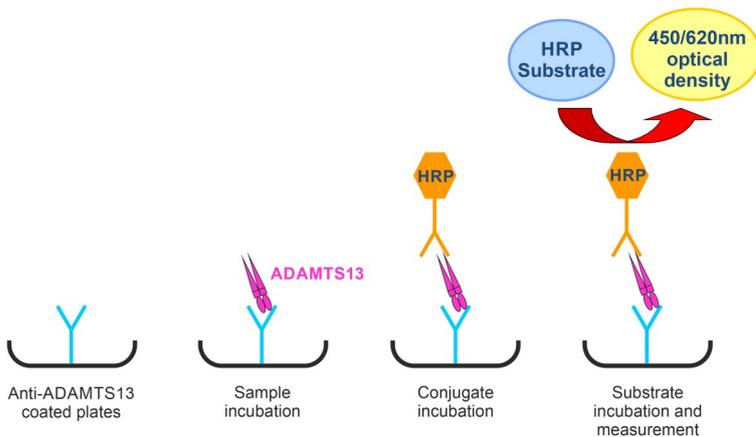
- Absence of ADAMTS13

Formation of very large vWF multimers leads to platelet aggregation in healthy vessels → TTP



TECHNOZYM[®] ADAMTS13 ANTIGEN (chromogenic)

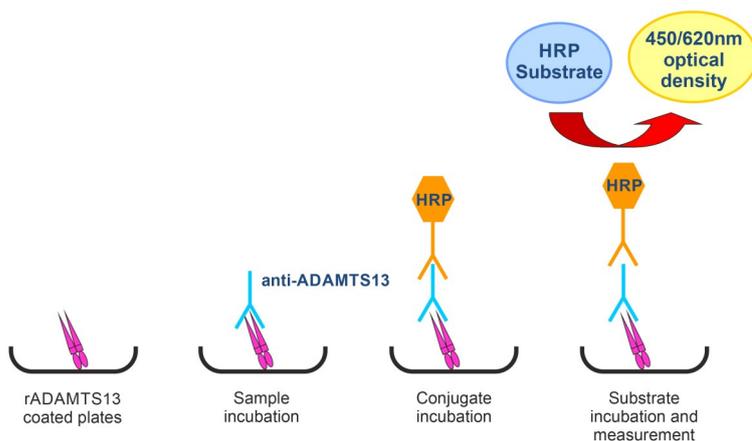
Chromogenic ELISA for determination of ADAMTS13 antigen concentration



- Measuring range 0.0 - 1.0 U/ml
- LOD 0.012 U/ml
- High linearity
- Calibrators and controls are calibrated against the WHO standard for ADAMTS13
- Fast result within approximately 3.5 hours
- Detection is independent of enzyme activity
- Manual or fully automated testing

TECHNOZYM[®] ADAMTS13 INHIBITOR (chromogenic)

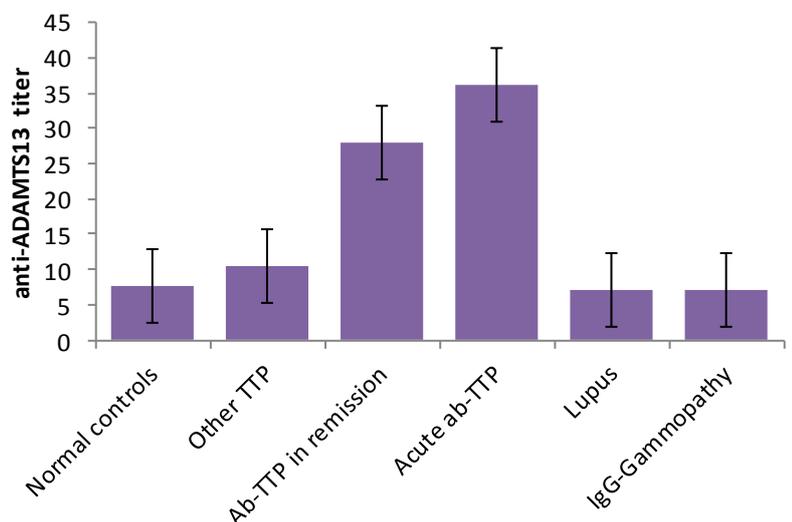
Chromogenic ELISA for determination of antibodies directed against ADAMTS13



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

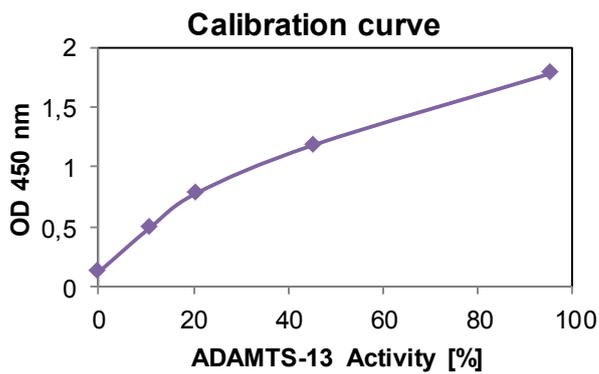
TECHNOZYM[®] ADAMTS13 INH ELISA can differentiate between acute TTP caused by anti-ADAMTS13 antibody and patients who are in remission or have other forms of TTP.

It is highly specific and can clearly differentiate between TTP samples and other samples with auto-antibodies (e.g. Lupus) or high IgG concentration (e.g. IgG Gammopathy)



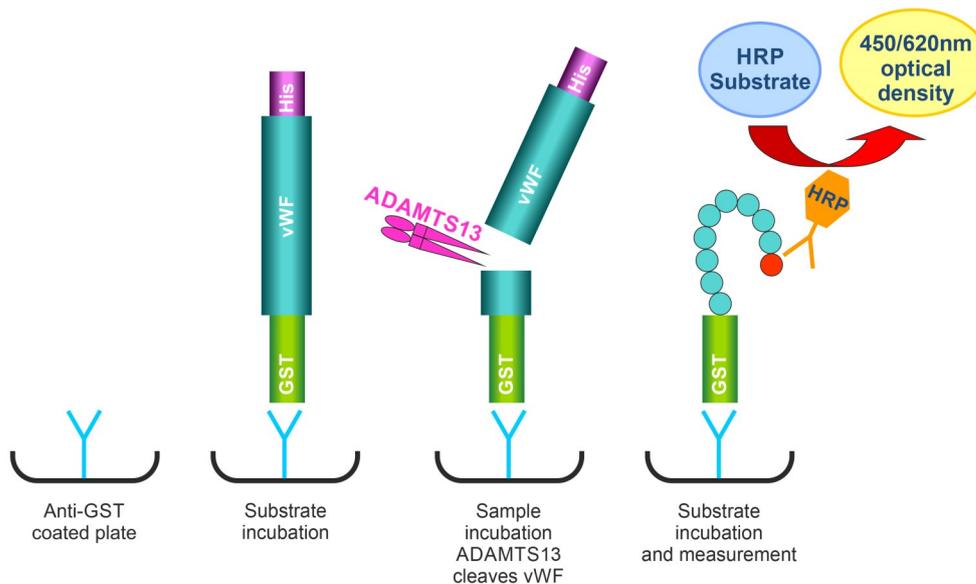
TECHNOZYM[®] ADAMTS13 ACTIVITY (chromogenic)

Chromogenic ELISA for the determination of ADAMTS13 activity

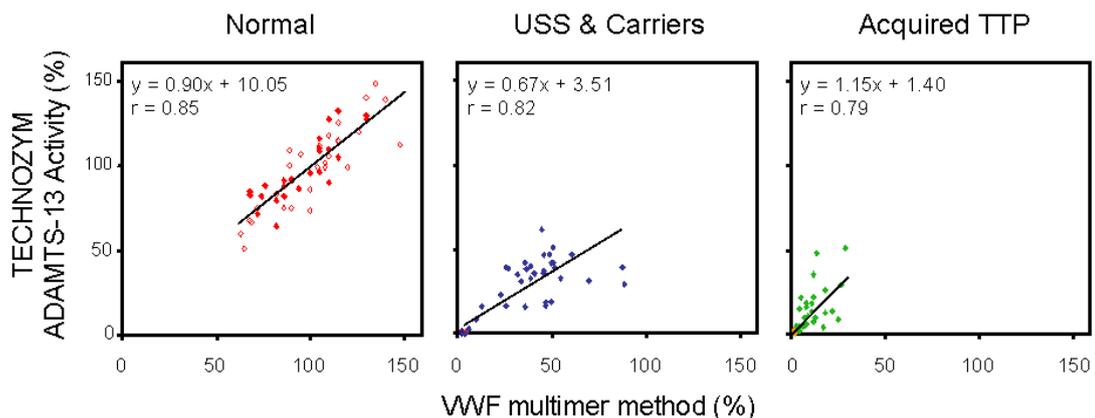


- High sensitivity for ADAMTS-13 activity down to 0.003 IU/ml
- Short assay time (3 h)
- Calibrators and controls are calibrated against the WHO standard for ADAMTS13
- No interference by bilirubin, hemolytic or lipemic patient samples
- High precision in the decision range with intra-assay CVs <5% and inter-assay CVs <9%
- Can be used for ADAMTS13 Inhibitor determination in Bethesda assay
- Demonstration video available on our TECHNOZOOM Youtube Channel (see QR-Code on the last page)

TEST PRINCIPLE



CORRELATION

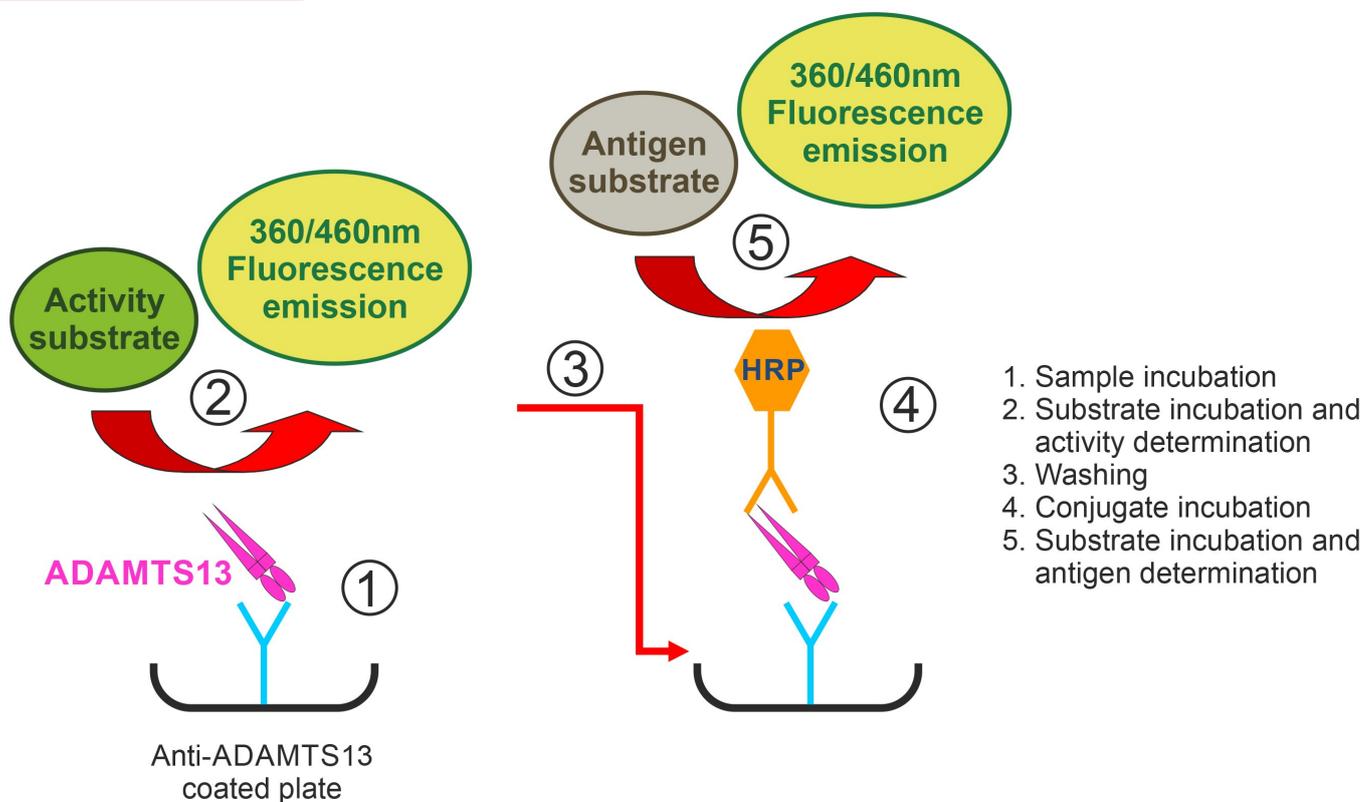


Good correlation in ADAMTS13 activity of different groups of samples

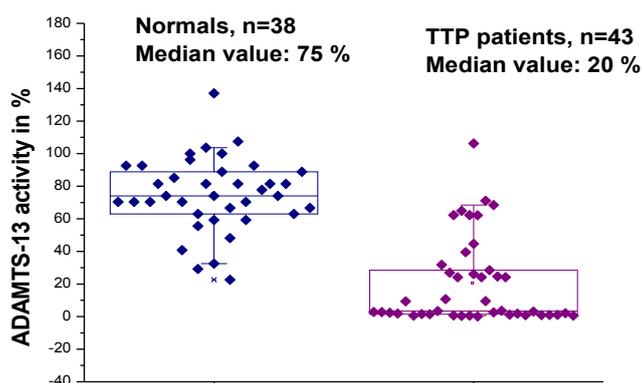
TECHNOZYM[®] ADAMTS13 (fluorogenic)

Fluorogenic ELISA for the determination of ADAMTS13 antigen and activity

TEST PRINCIPLE

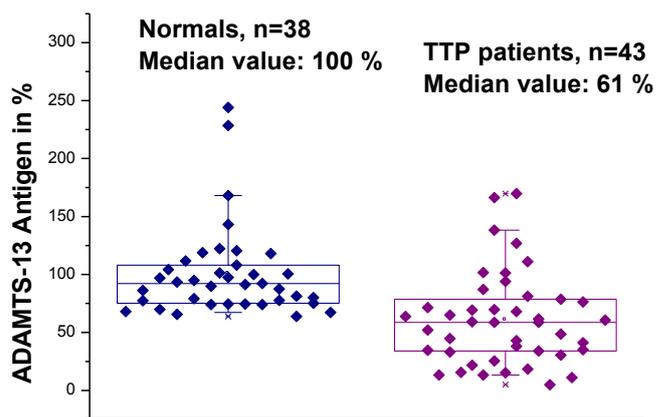


ACTIVITY AND ANTIGEN DETERMINATION



The ADAMTS13 antigen and the activity values, show significant differences between normal and TTP patients.

- 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 calibrated against the WHO standard for ADAMTS13



ADAMTS-13 Chromogenic ELISAs

| Product | Contents | REF | Tests |
|---|-------------------------------------|---------|----------|
| TECHNOZYM® ADAMTS13 Activity ELISA | 12 x 8 anti GST strips | 5450701 | 96 tests |
| | 1 x 12 ml HRP Conjugate | | |
| | 1 x 30 ml Reaction Buffer | | |
| | 1 x 53 ml Wash Buffer Concentrate | | |
| | 1 x 12 ml TMB Substrate | | |
| | 2 x 6 ml GST-vWF73 Substrate | | |
| | 1 x 12 ml Stop Solution | | |
| TECHNOZYM® ADAMTS13 Antigen ELISA | 12 x 8 anti ADAMTS13 strips | 5450601 | 96 tests |
| | 1 x 0.3 ml anti-ADAMTS13 Conjugate | | |
| | 1 x 80 ml Wash Buffer Concentrate | | |
| | 1 x 90 ml Incubation Buffer | | |
| | 1 x 12 ml TMB Substrate | | |
| | 1 x 12 ml Stop Solution | | |
| | 7 x 0.5 ml Calibrators and Controls | | |
| TECHNOZYM® ADAMTS13 INH ELISA | 12 x 8 rec. ADAMTS13 strips | 5450401 | 96 tests |
| | 1 x 0.3 ml anti-IgG Conjugate | | |
| | 1 x 80 ml Wash Buffer Concentrate | 5450451 | 48 tests |
| | 1 x 90 ml Incubation Buffer | | |
| | 1 x 12 ml TMB Substrate | | |
| | 1 x 12 ml Stop Solution | | |
| | 7 x 0.5 ml Calibrators and Controls | | |

ADAMTS13 Fluorogenic ELISA

| Product | Contents | REF | Tests |
|---|---------------------------------------|---------|--------------|
| TECHNOZYM® ADAMTS13 Activity/Antigen ELISA | 12/6 x 8 anti-ADAMTS13 strips | 5450501 | 2 x 48 tests |
| | 1 x 0.3 ml anti-ADAMTS13 Conjugate | | |
| | 1 x 80 ml Wash Buffer Concentrate | 5450551 | 48 tests |
| | 1 x 90 ml Incubation Buffer | | |
| | 2/1 x 3 ml Activity Substrate | | |
| | 1 x 6 ml Antigen Substrate | | |
| | 1 x 0.7 ml Stable Peroxidase Solution | | |
| | 1 x 6 ml Stop Solution | | |
| | 7 x 0.5 ml Calibrators and Controls | | |



Demonstration video for **TECHNOZYM® ADAMTS13 Activity ELISA** available on the **TECHNOCLONE** Youtube Channel (QR-Code)

For information regarding our new ADAMTS13 activity screening assay **TECHNOSCREEN® ADAMTS13 Activity** see separate folder

