

Platelet Aggregometer TA-8V and TA-4V

Semi-Automaton of platelet aggregation
The leader on French market



CE IVD

SD Medical

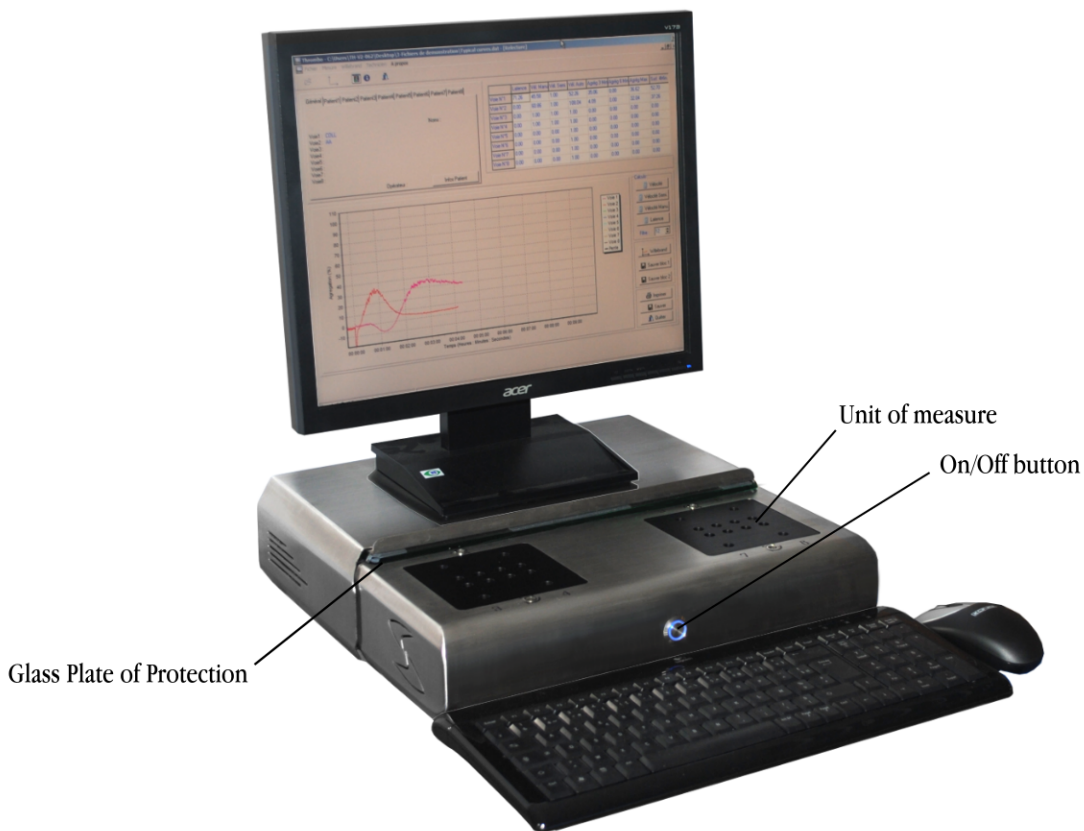
Innovation
for Health



MEASURING PRINCIPLE : PHOTOMETRIC METHOD

The process consists of an in vitro quantification approach of blood platelets aggregation under different concentrations of various aggregation agents. The device measures infra-red luminous beam transmission variations going through a platelet suspension.

The measuring unit is constituted by 1 or 2 removable blocks, thermostated at 37°C, each accommodating 4 tubes of patients plasma (adequate specimens), and allowing to work simultaneously on 4 or 8 channels.



Thrombo-aggregometer is an In Vitro Diagnostic Medical Device (IVDMD) for professional use.
Please read manual and labeling of the device before use.

Compatible Reagents

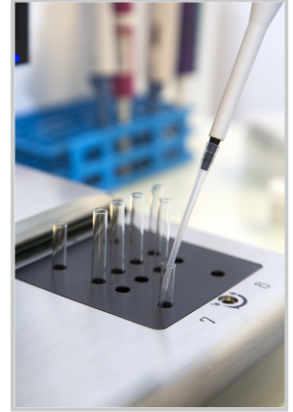
For an in vitro diagnosis of the platelet aggregation

The Thrombo-Aggregometer device is intended for use with compatible platelet aggregation reagents.

Reagents ADP, Epinephrin, Arachidonic Acid, Collagen and Ristocetin : they correspond in investigation of congenital or acquired thrombopathy. They allow the follow-up of patients treated with anti-platelet drugs such as aspirin, thienopyridines, abciximab and other NSAIDS and GPIIb/IIIa inhibitors.

The Ristocetin reagent is proposed for platelet aggregation tests, as an aid for the detection of Von Willebrand disease, (Von Willebrand factor determination) and identification of Bernard-Soulier Syndrome.

Lyophilized platelets : participate in the quantitative determination of Von Willebrand Factor in human plasma, through its Ristocetin co-factor activity, by using lyophilized platelets and Ristocetin.



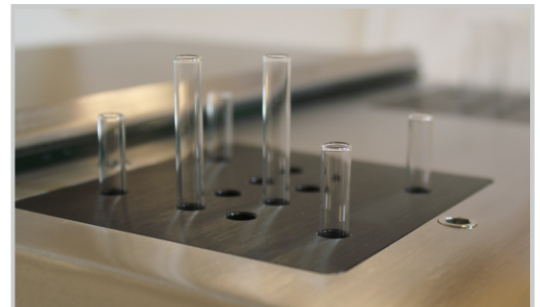
Consumables

For a better reliability and a reproducibility

SD Medical proposes two types of consumables:

- Glass tubes
- Stir bars

Only the use of this references ensure the reliability and the measure of aggregometer.



Device functions

Classic Aggregation

Goal

Exploration and evaluation of platelets functions in a platelet rich plasma (PRP) anti-coagulated with some citrate.

Application areas

Research a constitutional thrombopathy (Glanzmann thrombasthenia, Bernard-Soulier, etc.).

Research an acquired thrombopathy (myelodysplastic syndrome, myeloproliferative syndrome, etc.).

Biological follow-up of an anti-platelet treatment (aspirin and other non steroidal anti-inflammatory drugs, thienopyridines, abciximab and other GP IIb IIIa, etc.).

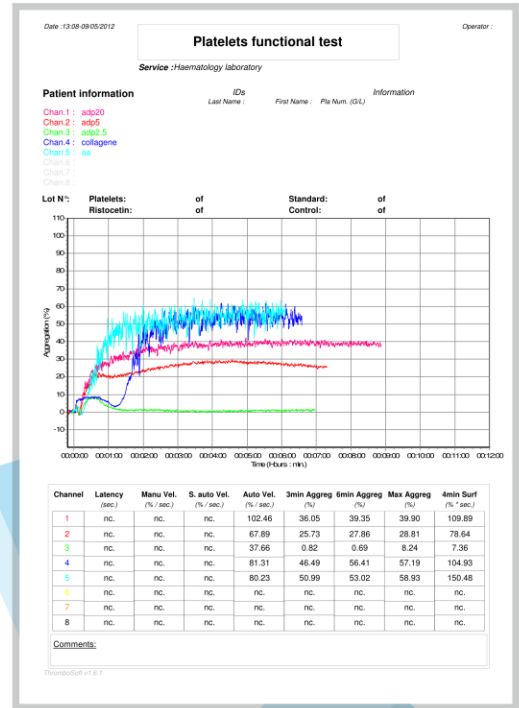
Research of a platelet hypersensitivity.

Typing approach of Von Willebrand disease.

Research for heparin-induced thrombocytopenia (HIT).

Technical

The aggregation which arises when platelets perceive an activator signal during the addition of an agonist (aggregating agent) is represented by a curve by agonist. It involves the connection of fibronogen to GP IIb IIIa complex activated.



Classic Aggregation

Heparin-Induced Thrombocytopenia (HIT)

Goal

Highlighting of activators (usually antibodies directed against Heparin-PF4 complex) platelets may be present in the patient plasma treated or exposed to Heparin (Unfractionated Heparin or Low Molecular Weight Heparin).

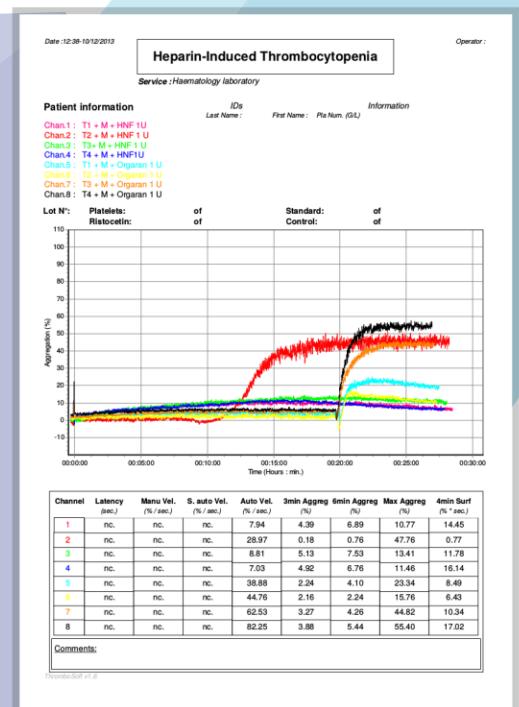
Application area

Test participating in biological diagnosis of thrombocytopenia induced by Heparin (UFH or LMWH).

Technical

Highlighting of platelets aggregation of "selected" control induced in the contact with the patient plasma during the addition of Heparin or related substances.

The most frequent activator is established by antibodies directed against the Heparin-PF4 complex but others antibodies can be met (anti-IL8, anti-NAP2, etc.).



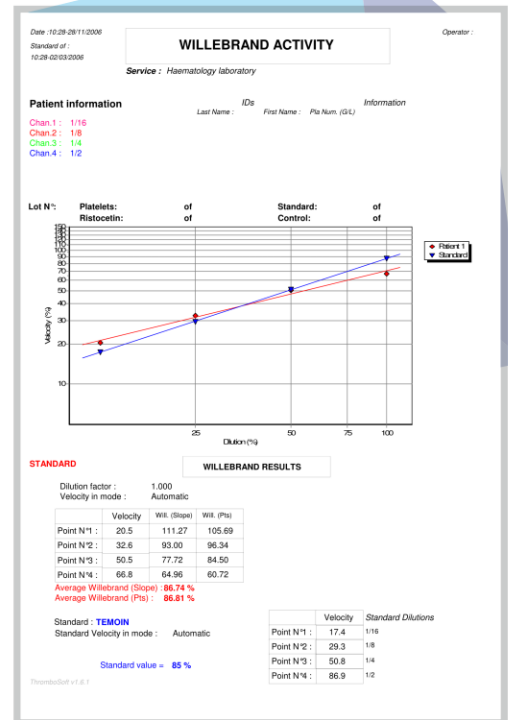
Heparin-Induced Thrombocytopenia (HIT)

Co-factor activity of Ristocetin of Von Willebrand Factor Goal

Exploration of the bleeding time extension (when the classic aggregation is not enough).

Technical

The measure is made with a suspension of normal platelet (usually lyophilized) and the patient citrated plasma, in the presence of Ristocetin. The software is known to perform an automatic calculation of the percentage of activity of the sick plasma compared to control (which by definition is at 100%). It allows to establish in a log-log system a calibration straight from 4 dilutions of control plasma. The velocity is automatically calculated and can be manually corrected by taking the most swift of the curve. In a second time, the software allows to establish in the same condition a straight of the patient plasma to study, then it makes the calculation the percentage of activity of sick plasma compared to the control plasma (possibility of verifying the parallelism of both straight). The device is particularly efficient thanks to the system for determining the slope of the variation of light transmission (clarification of the suspension due to the agglutination reaction). The test of answer to Ristocetin corresponds to a different process, involving the connection of the Von Willebrand Factor in the patient plasma of its platelets GPIb causing an agglutination calcium independent possibly followed by activation and aggregation.



Co-factor activity of Ristocetin of Von Willebrand Factor

A reliable and useful tool

Sensitivity and reliability of measurement

Embedded computer (saving space on bench)

4 or 8 measuring channels

Associated services and dedicated consumables (Glass tubes + Stir bars)

Reagents on request

Advantages

Quality Control

It enhances reliability and secures the surgical operation.

Diagnostic

Returns a reproducible, fast and reliable result.

Use

Simple and effective thanks to embedded computer.

Provides results in 10-20 minutes.

Ergonomic

Conceived and designed so that the device is not compact, save space bench.

Applications

Medical laboratories

To highlight the effects of an inhibitor treatment of the platelet functions.

For tests of detection of a heparin-dependent activating factor, in case of thrombopenia arisen during a treatment by heparin.

Exploration of the bleeding time extension (factor Von Willebrand).

Research laboratories, pharmacology

For in-vivo and ex-vivo studies.

Local Representative



"Our know-how : design, develop and commercialize innovative products for the medical industry."

MANUFACTURER

SD Innovation SAS

SD Medical is a brand of SD Innovation SAS

Site Eiffel / ZAC Ban la Dame – 4B, square Eugène Herzog
54390 FROUARD (FRANCE)

Tél : +33 (0) 3 83 57 58 01 – Fax : +33 (0) 3 83 57 23 38

E-mail : contact@sd-innovation.fr - Internet : www.sd-innovation.fr

