

CHRONO-LOG

C O R P O R A T I O N

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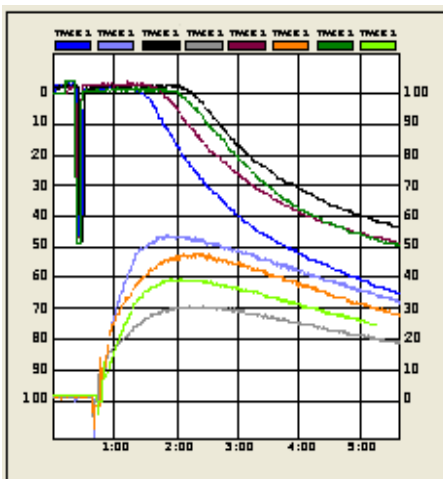
NEW AGGREGOMETER AVAILABLE IN TWO OR FOUR CHANNEL CONFIGURATION



Chrono-log introduces The Model 700 Whole Blood/Optical Lumi-Aggregometer available in a two or four channel configuration. This new Aggregometer measures platelet function on patient samples using electrical impedance in whole blood or optical density in plasma with simultaneously measuring ATP release by the luminescence method. The Model 700 Aggregometer also has the capability of performing the Ristocetin Cofactor Assay for diagnosing patients with von Willebrand's disease. The output can be connected to either a strip chart recorder or to a Computer. AGGRO/LINK8 and Vw Cofactor Software packages are provided for the computer interface option

With a proven track record of providing accurate and reliable results, the Chrono-log Whole Blood/Optical Lumi-Aggregometer is both a reliable diagnostic tool and a comprehensive screening tool. Direct measurement of ATP secretion during platelet aggregation provides unequivocal evidence of normal dense granule release. Simultaneous measurement of Aggregation and dense granule release provides a better insight into the mechanism of platelet response.

Housed in a smaller chassis, the Model 700 Aggregometer is available in configurations of up to Four (4) channels of aggregation and luminescence. The Baseline and Gain are set with a single Pushbutton. The front panel has a 24 character Liquid Crystal Display (LCD) for each channel. The heater block temperature, the luminescence gain, the stirring speed and the operating mode (Optical or Impedance) as well as warning messages are displayed on the LCD. The instrument has the ability to use Disposable or Reusable Electrodes for Impedance Aggregation.



Included with the Model 700 are software programs for platelet aggregation and the ristocetin cofactor assay. The AGGRO/LINK8 program provides real time color display of up to four channels of aggregation and ATP release, displaying a total of eight traces. This program performs computation of the traces reporting the results as maximum amplitude and slope. Lag time and area under the curve analysis is also available for each trace. Each graph, its values, patient demographics and reagent information are then stored on computer disk for later retrieval and printing. Test graphs can be easily recalled for viewing or printing

The Chrono-log von Willebrand Cofactor software package simplifies the vW assay. On-screen instructions guide the operator through the procedures to run dilutions for the standard curve and to test patient samples. The best-fit standard curve is calculated automatically and then stored along with reagent lot numbers. Up to four samples can be processed simultaneously; tests on samples need not start and stop at the same time, allowing for stress-free operation. Percent activity is automatically calculated and reported.

MODEL 700 SPECIFICATIONS

Test Channels:

(2) or (4) Channels (Two, 2-Channel Modules), with:

Optical Aggregation – aggregation in PRP, gel-filtered or washed platelet samples.

Impedance Aggregation - aggregation in a 1mL sample. Automatic baseline set at 0% and 20Ω gain fixed at 50%.

Luminescence - Photo-multiplier tube detects ATP Release. Nine gain settings - X 0.005 to X 2.

Front Panel Display and Controls:

LCD Display – 24-characters x 2-line Liquid Crystal Display, one per channel, displays:

- Heater Block - temperature in °C
- Luminescence gain
- Stirring speed in RPM
- Operating mode (Optical or Impedance)
- Warning messages

Power ON/OFF Switch

Set Baseline Pushbutton(s) - Sets aggregation baselines to 0%. Adds 20 ohms (± 0.2 ohms) of resistance to set the impedance gain fixed at 50% of scale. Luminescence baseline set at 0%.

Select Switch – select Luminescence Gain, Temperature or Stirring Speed

Set Switch – Set Luminescence Gain, Temperature or Stirring Speed.

Mode Switch – Sets Impedance or Optical mode

PPP Selector Switch - Set to 1, tests referenced to Channel 1 PPP. Set to own channel (2,3,4), test referenced to PPP for that channel.

Calibration Switch – Key-activated calibration of optical circuits.

Heater Block - set between 35.0°C and 39.0°C in 0.1°C steps. Error detection prevents operation when outside $\pm 0.2^\circ\text{C}$.

Stirrer - 400 to 1200 RPM in 100-RPM steps with “Stirrer Stopped” position. Error detection prevents operation if not within ± 10 RPM.

Sample Volumes

- **Whole Blood Lumi-Aggregation** - typically 450μL whole blood plus 450μL of irrigation saline and 100μL CHRONO-LUME[®] Reagent.
- **Whole Blood Aggregation** - typically 500μL whole blood plus 500μL irrigation saline
- **Optical Lumi-Aggregation** - typically 450μL PRP plus 50μL CHRONO-LUME[®] Reagent; 225 μL PRP with spacers
- **Optical Aggregation** – typically 500μL PRP; 250μL with spacers

General Specifications (each module)

Power requirements - Switch selectable 115 or 230VAC ($\pm 10\%$), 50/60 Hz, 150 watts max.

Dimensions – 14” (36cm) wide, 8.5” (22 cm) high, 18” (46cm) deep;

Weight - 40 lbs. (18kg);

Incubation Wells – Six (6) wells each channel @ $36.5^\circ \pm 1.0^\circ\text{C}$ when temperature set at 37°C .

Output Options:

1. **Computer Interface** - Digital Outputs - RS-232 and USB with AGGRO/LINK8 software.
2. **Data Reduction System** – (*Included with Models 700-2DR and 700-4DR*) - State of the art Computer, Color Monitor and Color Printer. Software packages, Installed:
 - **WINDOWS XP** [subject to change]
 - **AGGRO/LINK8** - real time color display of 4 channels of aggregation and ATP release... *total of eight traces*. Computes amplitude, slope, lag time and area under the curve. Reagent data, test values, and demographics stored in computer for later recall. [*Requires Windows 98 or better operating system*]
 - **vW Cofactor Software** - on-screen instructions, best-fit standard curve and CD calculated for 2 to 6 points. Allows rerun or deletion of serial point. Stores curves with lot numbers. Four samples can be run simultaneously. Percent of vW activity calculated and reported.
3. **Chart Recorder** - Analog output. Chrono-log Model 706 Single or Model 707 Dual Pen recommended. Other recorders must have (1) megohm min. input impedance, 100 mV range and 1 cm/minute chart speed.

Accessories and Supplies - Impedance

- **Electrode Probe Assembly [reusable]** – P/N 369W (one for each channel)
- **Electrode Probe Assembly [disposable]** – P/N 315-25, P/N 315-50, P/N 315-100 (includes test cuvette)
- **Cuvettes** – 1mL, P/N 367
- **Stir Bars** – Disposable: siliconized, P/N 370; Reusable: Magnetic, Teflon-Coated, P/N 368

Accessories and Supplies – Optical

- **Insert Assembly** —P/N 366 (one for each channel)
- **Cuvettes** – 500 μL, P/N 312
- **Stir Bars** – Disposable: siliconized, P/N 311; Reusable: Magnetic, Teflon-Coated, P/N 313
- **Spacers**, P/N 365, for testing microvolume samples as low as 250 μL