ESR

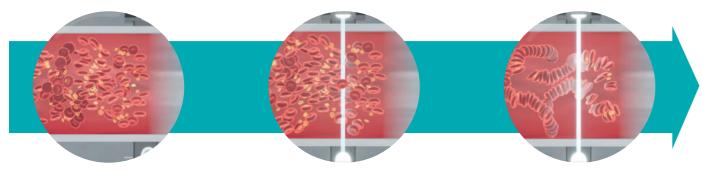
FULLY AUTOMATED ANALYZERS

FOR THE DETERMINATION OF THE ERYTHROCYTE SEDIMENTATION RATE





ESR IN 20 SECONDS BY RED CELL AGGREGATION



EACH SAMPLE is read 1000 times in 20 seconds





CAPILLARY PHOTOMETRY

Temperature control 37°C

Independent from Hematocrit value

No dilution, use of EDTA tube

Use of the same capillary for all samples

No influence of vibration or other external factors

Automated mixing step

Latex Controls and Calibrators available

High reproducibility

SEDIMENTATION ESR

Temperature variability

Hematocrit influence

Dilution problems using Sodium Citrate

Inadequate materials and pipettes variability

Vibrations and pipette verticality influence

No standardized sample mixing

Controls and Calibrators lack

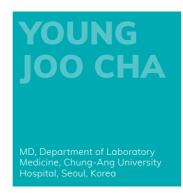
Poor reproducibility

TEST1 CAPILLARY PHOTOMETRY TECHNOLOGY OVERCOMES THE MAJORITY OF THE VARIABLES AND LIMITATIONS OF THE SEDIMENTATION METHOD (ICSH RECOMMENDATIONS, 2017).

Alifax technology is classified by CLSI guidelines as an alternative method for ESR (H02-A5 Vol. 31, N.11)

"ESR measurements by TEST1 reflect inflammation better than do those by the Westergen method in patients with malignancy, autoimmune disease, or infection"

Clin Chem Lab Med 2010:48(7):1043-1048







TEST1

Direct loading from original cell blood counter rack



TEST1 THL SI 195.210/THL

NEW AUTOMATIC WASHING SYSTEM

- 175 µl EDTA blood sample per test
- Only 800 µl sample requested in the tube
- Capacity up to 60 samples
- Direct loading of CBC racks
- Throughput up to 150 samples/hour
- Internal bar code reader
- Bidirectional connection to LIS



TEST1 BCL

SI 195.220/BCL

Up to 60 samples per session with **ALIFAX** green plastic racks.

Up to 48 samples per session with Beckman Coulter Series LH 700 CBC racks

TEST1 SDL

SI 195.230/SDL

Up to 40 samples per session with **ALIFAX** yellow plastic racks.

Sysmex series SF/SE/XE/XT/XS/XN, cell counter rack Mindray and Horiba Yumizen

TEST1 YDL

SI 195.240/YDL

Up to 40 samples per session with **ALIFAX blue plastic racks.**

Up to 40 samples per session with Siemens Series ADVIA 120 CBC racks

TEST1 MDL

SI 195.250/MDL

Up to 40 samples per session with **Beckman Coulter**

Series LH 500 CBC racks

TEST1 XDL

SI 195.260/XDL

Up to 40 samples per session with Beckman Coulter

Series DxH 800 CBC racks





ROLLER

Manual tube loading also for uncapped and low volume samples

ROLLER 20-PN

SI R20-PN

Double circuit for automatic and manual sampling

- Internal rotor with 20 positions
- 175 µl EDTA blood sample automated withdrawal per test
- 100 µl sample requested in the tube for manual withdrawal
- LCD touch screen
- User-friendly software
- Automatic washing system
- External barcode reader







ROLLER 20-MC

SI R20-MC

Manual sampling

- Only 30 µl EDTA blood sample
- LCD touch screen
- User-friendly software
- External barcode reader



ROLLER 20-LC SI R20-LC

Automatic sampling

- 175 µl EDTA blood sample per test
- 800 µl sample requested in the tube
- 18 samples
- Simplified needle replacement
- Automated washing

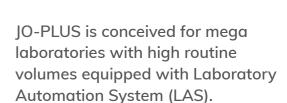






JO-PLUS

On line ESR SYSTEM for total laboratory automation



JO-PLUS is based on the same TEST1 family technology.



JO-PLUS SI 804.100

- 120 samples processed in about 1 hour
- 175 µl EDTA blood sample per test
- Results available in 30 seconds

Power supply: 115-230 VAC (SMPS), 50/60 Hz Power consumption: 66W Size: $94 \times 30 \times 42$ cm (W,D,H) Weight: 16 Kg

LATEX CONTROLS

Three levels to guarantee: precision, accuracy, repeatability

6 TESTS

30 TESTS





SI 305.100-A (Greiner tubes) SI 305.102-A (Sarstedt tubes) SI 305.300-A (Greiner tubes) SI 305.302-A (Sarstedt tubes)

SHELF LIFE: From production: 6 months. From the 1st piercing: 6 weeks **STORAGE** CONDITIONS: From production: +4-25°C. From the 1st piercing: +4-8°C

EQE KIT

External Quality Evaluation kit specific for all Alifax ESR analyzers



Third parties international programs available:

- CAP
- LABQUALITY
- NEQAS
- ONEWORLD ACCURACY
- API

SMART CARD

Environmentally friendly cards save storage and transport costs.
Only pay for a test when needed.



1.000

4.000

10.000

20.000

tests

tests

tests

tests

TEST1 ROLLER

code SI 195.901

code SI 195.904

code SI 195.910

code SI 195.920

JO-PLUS

code SI 804.910

code SI 804.920

COMPARATIVE CHART









	TEST1	ROLLER 20 PN	ROLLER 20 LC	ROLLER 20 MC
Positions	Up to 60	Up to 20	Up to 18	•
Sampling	Automatic direct loading of 4 CBC racks	Automatic and Manual	Automatic	Manual
Time To Result	20"	30"	20"	18"
Min Volume	800 μΙ	800 µl (auto) 100 µl (manual)	800 μΙ	100 μΙ
Testing volume	175 μΙ	175 μl (auto) 100 μl (manual)	175 μΙ	30 μΙ
Internal minima	14			
Internal mixing	V	V	V	X
Thermostatation 37°C	V	<i>V</i>	<i>Y Y</i>	× V
	`	•	•	
Thermostatation 37°C	V	V	V	V
Thermostatation 37°C Internal washing	V	<i>V V</i>	<i>V V</i>	×
Thermostatation 37°C Internal washing Barcode reader	<i>V V V</i>	(ext. optional)	(ext. optional)	(ext optional)
Thermostatation 37°C Internal washing Barcode reader Printer	<pre></pre>	(ext. optional)	(ext. optional)	(ext optional)
Thermostatation 37°C Internal washing Barcode reader Printer LIS bidirectional connection	<pre></pre>	(ext. optional)	V (ext. optional) V	(ext optional)
Thermostatation 37°C Internal washing Barcode reader Printer LIS bidirectional connection Dimensions (cm) W,D,H	VVVV49 x 54 x 60	(ext. optional) V 24 x 39 x 46	(ext. optional) V 32 x 56 x 58	(ext optional) V 24 x 39 x 46
Thermostatation 37°C Internal washing Barcode reader Printer LIS bidirectional connection Dimensions (cm) W,D,H Weight (Kg)	 V V V V 49 x 54 x 60 47 	(ext. optional) (ext. optional) (24 x 39 x 46 16	(ext. optional) (ext. optional) (32 x 56 x 58 23,2	(ext optional) (ext optional) (24 x 39 x 46 11

Class I - FDA registered - Device listing number D116930 FOR PROFESSIONAL USE ONLY next introduction graphic layout





INSIDE INNOVATION

NEW ESR SYSTEM GENERATION

ERYTHROCYTE SEDIMENTATION RATE

- Lapić I, Piva E, Spolaore F, Tosato F, Pelloso M, Plebani M; Automated measurement of the erythrocyte sedimentation rate: method validation and comparison. Clin Chem Lab Med. 2019 Apr 2
 Kim M, Ju YS, Lee EJ, Lee E, Jeon K, Lee J, Kang HJ, Kim HS, Lee JS, Kim HJ, Lee YK; Erythrocyte sedimentation rate measured using microhemagglutination is not eleva ed in monoclonal gammopathy compared with other diseases. Int J Lab Hematol. 2018Oct;40(5):540-548
 Sonmez C, Dogan OC, Kaymak AO, Akkaya N, Akin KO, Guntas G; Test-1 analyzer

- Sonmez C, Dogan OC, Kaymak AO, Akkaya N, Akin KO, Guntas G; Test-1 analyzer and conventional Westergren method for erythrocyte sedimentation rate: A comparative study between two laboratories. J Clin Lab Anal. 2018 Jun;32(5). Kratz A, Plebani M, Peng M, Lee YK, McCofferty R, Machin SJ; ICSH recommendations for modified and alternate methods measuring the erythrocyte sedimentation rate. Int J Lab Hematol. 2017 Oct;39(5):448-457.
 Cha CH, Cha YJ, Park CJ, Kim HK, Cha EJ, Kim DH, Honghoon, Jung JS, Kim MJ, Jang S, Chi HS, Lee DS; Evaluation of the TEST 1 erythrocyte sedimentation rate system and intra- and inter-laboratory quality control using new latex control materials. Clin Chem Lab Med 2010;48(7):1043–1048
 Scott G, Nguyen T, Leunda Ostolaza S, Galiano C, Nalbandian G and Miller B; Roller 20PN and Westergren Correlation. White Paper 2012 Chatsworth, CA Cha CH, Park CJ, Cha YJ, Kim HK, Kim DH, Honghoon, Bae JH, Jung JS, Jang S, Chi HS, Lee DS, Cho HI; Erythrocyte Sedimentation Rate Measurements by TEST 1
 Better Reflect Inflammation Than Do Those by the Westergren Method in Patients With Malignancy, Autoimmune Disease, or Infection. Am J Clin Pathol. 2009 Feb;131(2):189-94
- ratients With Malignancy, Autoimmune Disease, or Infection. Am J Clin Pathol. 2009; eb;131(2):189-94; rollano B, Cigliana G, Vitelli G, Fontinovo R, Giommi S, Cordone I; Capillary Frythrocyte Sedimentation Rate (ESR) in oncological patients: low haematocrit pitfalls and sample collection optimization in a certified quality system laboratory. SiBio C National Congress 28-31 October 2008. Rimini, Italy. Pajola R, Piva E, Robecchi B, Tosato F, Plebani M; The Erythrocyte Sedimentation Rate (ESR): an old test with new contents. SIBio C National Congress 28-31 October 2008. Rimini, Italy. Reis J, Diamantino J, Cunha N, Valido F; Erythrocyte sedimentation rate in blood a comparison of the Test 1 ESR system with the ICSH reference method. Clinical Chemistry and Laboratory Medicine 2007 June; 45, Special Supplement, p.S118, 4077.

- realizan VHS, Test1 y Vesmatic", XII Congreso Chileno de Tecnologia Medica. 20–22 October 2004, Santiago, Chile 18. Plebani M, D'Altoé P, Temporin V, Piva E, Buttarello M, Sanzari M; Variabilità Biologica Intra ed Interindividuale della Velocità di Eritrosedimentazione. 36th SIBioC, 8-11 June 2004, Padova, Italy

- Melkič E, Piskar M, Lenart P: Nov način merjenja hitrosti sedimentacije eritrocitov z analizatorjem Test1 Alifax. 2 Kongres Hematologov in Transfuziologov Slovenije z Mednarodno Ubelelbo, 23–24 April 2004, Portoroz, Slovenia
 Olivera Alonso B, Sirvent Monerris M, Rotella Belda MT, Ballenilla Antón V, Vidal G; Cambios B, Sirvent Monerris M, Rotella Belda MT, Ballenilla Antón V, Vidal G; Cambios B, Sirvent Monerris M, Rotela Belda MT, Ballenilla Antón V, Vidal G; Cambios B, Sirvent Monerris M, Rotela Belda MT, Ballenilla Antón V, Vidal G; Cambios B, Sirvent M, Spain 2004
 Saliano P; Quality and Automation in the Determination of the Erythrocyte Sedimentation Rate", Symposium 046, 22nd World Congress of Pathology & Laboratory Medicine, 30 August- 1 September 2003, Busan, Korea.
 Nicoli M, Lanzoni E, Massacco A; Integrated Hoematology and Coagulation Laboratory. Poster, Euromediab Congress, 1-5 June 2003, Barcelona, Spain 23. Plebani M; Erythrocyte Sedimentation Rate: Innovative Techniques for an Obsolete Test? Clinical Chemistry and Laboratory Medicine, 2003, 41 (2): 115-116
 Romero A, Muñoz M, Ramirez G, Determination of the Length of Sedimentation Reaction in Blood: a Comparison of the Test1 ESR System with the ICSH Reference Method and the Sedisystem", Clinical Chemistry and Laboratory Medicine 2003, 41 (2)
 Sigiavarina D, Capuzzo S, Cauduro F, Carta M, Soffiati G; Internal Quality Control for Erythrocyte Sedimentation Rate Measured Test 1 Analyzer. Clinical Laboratory 2002, 48:459-462
 Hevenin E: Comparison of the Westergren method versus the TEST1 technique for determining the Erythrocyte Sedimentation Rate. May 2002, private communication.
 Lee BH, Choi J, Gee MS, Lee KK, Park H; Basic Evaluation and Reference Range Assessment of TEST1 for the Automated Erythrocyte Sedimentation Rate. Device Sedimentation Rate. Sedimentation Rate. Sedimentation Rate. Sedimentation Rate Pythocyte Sedimentation Rate. Sedimentation

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