

# TECO

MEDICAL INSTRUMENTS  
PRODUCTION+TRADING GMBH

Dieselstraße 1  
D-84088 Neufahrn N.B.  
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## TO WHOM IT MAY CONCERN

To any governmental departments,  
registration and/or trade offices in MOLDOVA

### Distribution Authorisation Letter

This letter confirms that **Sanmedico**  
**Mun. Chisinau**  
**Str. Petricani 88/1 of. 10**  
**Republica MOLDOVA**

is the **legal, exclusive and sole** representative of **TECO Medical Instruments Production + Trading GmbH, Dieselstr. 1, 84088 Neufahrn NB, Germany**, for the territory of **MOLDOVA** only for all TECO products listed below. **Sanmedico** may participate in public and private tenders, providing sales to all TECO customers in the territory. We as manufacturer certify that our warranty is duly passed to the purchaser through **Sanmedico** for the price, delivery schedules and the specifications of the published literature, catalogues and fully covering the commodities offered.

**Sanmedico** will provide the following information to TECO GmbH when so required in relation to its market surveillance activities:

Reporting of incidents to TECO must take place within 3 working days  
Serial number of the device, exact location of the device and the user.

Validity: January 1<sup>st</sup>, 2023 to December 31<sup>st</sup>, 2024


Termination: Confirmation ends automatically on Dec. 31<sup>st</sup> of 2024  
and must be then renewed.

#### Products:

- Coatron M1 Semi-automated 1-channel Coagulometer (out of production)
  - Coatron M2 Semi-automated 2-channel Coagulometer (out of production)
  - Coatron X Eco Semi-automated 1-channel Coagulometer
  - Coatron X Pro Semi-automated 2-channel Coagulometer
  - Coatron X Top Semi-automated 4-channel Coagulometer
  - Coatron A4 Fully automated Coagulometer, 4 optic channels
  - Coatron A6 Fully automated Coagulometer, 6 optic channels
  - Coatron A6 plus Fully automated Coagulometer, 6 optic channels
  - Hemostasis Reagents Complete product line
- all instruments with complete accessory, consumables and spare parts

This document is signed in Neufahrn, Germany, on January 18<sup>th</sup>, 2023

TECO Medical Instruments Production+Trading GmbH

  
Christian Hoetzl



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# Certificate of Approval

This is to certify that the Management System of:

## **TECO Medical Instruments, Production + Trading GmbH**

Dieselstr. 1, 84088 Neufahrn, Germany

has been approved by LRQA to the following standards:

**ISO 13485:2016**

Approval number(s): ISO 13485 – 00038268

**The scope of this approval is applicable to:**

Design, development, manufacturing, storage and sales of coagulation instruments and in-vitro-diagnostic reagents used in the hemostaseology and coagulation.



**Paul Graaf**

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Area Operations Manager, Europe

Issued by: LRQA Limited



0001



# KONFORMITÄTSERKLÄRUNG DECLARATION OF CONFORMITY

Doc#001-01/06-2022

Hersteller / Manufacturer: **TECO Medical Instruments  
Production and Trading GmbH**  
Adresse / Address: **Dieselstrasse 1, 84088 Neufahrn, Germany**  
Marktakteur / Actor ID SRN: **DE-MF-000022642 <https://ec.europa.eu>**

Die hier benannten Produkte der generischen Produktgruppe erfüllen die Anforderungen der aufgeführten Verordnungen, Richtlinien und Normen. Im Falle eigenmächtiger Veränderungen am Produkt oder der nicht bestimmungsgemäßen Verwendung verliert diese Erklärung ihre Gültigkeit.

Diese Konformitätserklärung wird unter der alleinigen Verantwortung des Herstellers ausgestellt.

## **BASIS UDI-DI 426018278CMX81152**

IVD - halb-automatische Blutgerinnungsmessgeräte - Handelsbezeichnung, Typ, Kat.-Nr.  
IVD - semi-automated Coagulation Systems - trade name, type, model, Cat.-No.

## **Coatron X Eco / Coatron X Pro / Coatron X Top**

**81 101 10**

**81 101 20**

**81 101 40**

The products of the generic product group named here fulfil the requirements of listed regulations, directives and standards. In the case of unauthorised modifications to the product or use not in accordance with the intended purpose, this declaration becomes invalid.

This declaration of conformity is issued under the sole responsibility of the manufacturer.

### **Verordnung (EU) 2017/746**

für in-vitro Diagnostika-IVDR  
und dem harmonisierten Standard am 2022-05-12:

Risikoklassifizierung gemäß Artikel 47–Anhang VIII  
**Regel 5 b – „Klasse A“**

Konformitätsbewertungsverfahren gemäß:  
(EU) 2017/746 Artikel 17 (Anhang II+III)

Angewandte Normen zur Sicherstellung der  
grundlegenden Anforderungen an Leistung und  
Sicherheit:

EN ISO 18113-3:2011  
DIN EN 62304:2018  
DIN EN 62366-1  
DIN EN 62366-1:2017  
DIN EN 61326-1:2013  
DIN EN 55011:2009 + A1:2010  
IEC 61010-1:2010, AMD1:2016  
IEC 61010-2-101:2015  
IEC 61010-1:2010

Richtlinie 2011/65/EU RoHS III  
(incl. (EU) 2015/863) - DIN EN IEC 63000

QM-System gemäß (EU) 2017/746 Art.10(8)  
angewandter Standard: EN ISO 13485:2021

### **Regulation (EU) 2017/746**

for In-vitro diagnostic medical devices  
and it's harmonized standard at 2022-05-12:

Risk classified according to article 47 annex VIII  
**Rule 5 b – "Class A"**

Conformity assessment procedure in accordance with:  
(EU) 2017/746 Article 17 (annex II+III)

Standards applied to ensure the essential requirements  
for performance and safety:

EN ISO 18113-3:2011  
DIN EN 62304:2018  
DIN EN 62366-1  
DIN EN 62366-1:2017  
DIN EN 61326-1:2013  
DIN EN 55011:2009 + A1:2010  
IEC 61010-1:2010, AMD1:2016  
IEC 61010-2-101:2015  
IEC 61010-1:2010

Directive 2011/65/EU RoHS III  
(incl. (EU) 2015/863 - DIN EN IEC 63000

QM-Systems in accordance with (EU) 2017/746 art.10(8)  
Applied standard procedure: EN ISO 13485:2021

Ort und Datum der Unterzeichnung: Neufahrn, 2022-06-21  
Place and date of issue:

Matthias Dieckmann  
General Manager



Christian Hötzl  
Verantwortliche Person / PRRC



# KONFORMITÄTSERKLÄRUNG DECLARATION OF CONFORMITY

Doc#200/08-2022

Hersteller / Manufacturer: **TECO Medical Instruments  
Production + Trading GmbH**  
 Adresse / Address: **Dieselstrasse 1, 84088 Neufahrn, Germany**  
 Marktakteur / Actor ID SRN: **DE-MF-000022642 <https://ec.europa.eu>**

Wir erklären hier für die im Anhang A ( Seite 2 – 23 IVD Produkte) spezifizierten Produkte dass sie gemäß der Richtlinie für In-vitro-Diagnostika Medizinprodukte 98/79/EC klassifiziert sind als allgemeine IVD.

Diese Konformitätserklärung wird unter der alleinigen Verantwortung des Herstellers i.V.m. Artikel 110 Abs.3 und Abs.4 der Verordnung (EU) 2017/746 und des § 8 Abs.1 des Medizinprodukte-Durchführungsgesetzes, in der jeweils geltenden Fassung, ausgestellt.

Im Falle eigenmächtiger Veränderungen am Produkt oder der nicht bestimmungsgemäßen Verwendung verliert diese Erklärung ihre Gültigkeit.

We declare herewith for the products specified in Annex A ( page 2 - 23 IVD products) that they are classified as general IVD according to the In Vitro Diagnostic Medical Devices Directive 98/79/EC.

This declaration of conformity is issued under the sole responsibility of the manufacturer in according to article 110 para.3 and para.4 of Regulation (EU) 217/746 and section 8 para.1 of the Medical Device Law Implementing Act.

In case of unauthorised modifications to the products or un-intended use, this declaration loses its validity.

Sie entsprechen den anwendbaren Anforderungen der Richtlinie:	They meet applicable requirements of:
Richtlinie 98/79/EG über In-vitro-Diagnostika klassifiziert gemäß Artikel 9 als "alle anderen Produkte"	Directive 98/79/EC on in-vitro-diagnostic medical devices classified according to article 9 as „all other products“
Die Qualitätssicherung entspricht den Anforderungen der Richtlinie 98/79/EG über In-vitro-Diagnostika für diese Art von Produkten.	The Quality Assurance is in accordance with the requirements of Directive 98/79/EC on in-vitro-diagnostic medical devices for those kind of products.
Der implementierte QM-Prozess entspricht der EN ISO 13485:2021	The implemented QM Process complies with EN ISO 13485:2021
Die vorstehende Konformitätserklärung ist gültig für alle Chargen dieser Produkte, die nach dem Datum der Unterzeichnung in Verkehr gebracht wurden.	The above mentioned declaration of conformity is valid for all lots of this product, which are distributed after the date of signature.
Das Konformitätsbewertungsverfahren entspricht Anhang III der Richtlinie 98/79/EG über In-vitro-Diagnostika für diese Art von Produkten.	The conformity assessment procedure complies with Annex III of Directive 98/79/EC on in-vitro-diagnostic medical devices for those kind of products.

Ort und Datum der Unterzeichnung: **Neufahrn, 2022-08-31**  
Place and date of issue:



Christian Hötzl  
Verantwortliche Person / PRRC

Doc#200/08-2022

## KONFORMITÄTSERKLÄRUNG – DECLARATION OF CONFORMITY

Directive 98/79/EC Annex A

Übrige Produkte – Reagenzien für In-vitro-Diagnostika

Other products – Reagents for in vitro diagnostic – general IVD

Pos.	Article No	Tradename	Unit	Generic Device Term	EMDN / GMDN Code EUDAMED DI
1	A0230-040	TEClot PT-S (Quick)	10x4ml PT-S	Prothrombin time ( quick test )	W0103020101 / 30539 B-PTS-A0230-040X7
2	A0230-100	TEClot PT-S (Quick)	10x10ml PT-S	Prothrombin time ( quick test )	W0103020101 / 30539 B-PTS-A0230-100WY
3	A0260-050	TEClot PT-B (Owren)	5x10ml PT-B	Prothrombin time ( quick test )	W0103020199 / 55986 B-PTB-A0260-050G2
4	A0320-050	TEClot APTT-S	10x5ml APTT-S	Activated partial thromboplastin time	W0103020102 / 55982 B-APTS-A0320-050AM
5	A0401-020	TEClot TT	10x2ml TT	Thrombin time / reptilase / batroxbin time	W0103020103 / 55988 B-TT-A0401-0207P
6	A0511-020	TEClot FIB	10x2ml FIB	Fibrinogen assays (factor i)	W0103020201 / 55997 B-FIB-A0511-020N2
7	A0511-050	TEClot FIB	10x5ml FIB	Fibrinogen assays (factor i)	W0103020201 / 55997 B-FIB-A0511-050NB
8	C1010-020	TEChrom AT	6x6ml reagent FXa 3x3 ml substrate	Antithrombin	W0103020602 / 56156 B-AT-C1010-020HL
9	D2010-012	Red D-Dimer	3x4ml latex 3x7ml reaction buffer	D-Dimer	W0103020503 / 47349 B-DD-D2010-0126W
10	D2020-005	Blue D-Dimer LC	1x5ml latex LC 1x7ml reaction buffer	D-Dimer	W0103020503 / 47349 B-DD-D2020-0057E
11	P8001-010	TECal N	10x1ml	Calibration plasma for haemostasis	W0103020701 / 45786 B-CAL-P8001-005X8
12	P8200-005	TECal DD	5x1ml	Calibration plasma for haemostasis	W0103020701 / 47348 B-CAL-P8200-005XX
13	P6001-010	TEControl N	10x1ml	Control plasma for haemostasis	W0103020702 / 30590 B-CTRL-P6001-010H7
14	P6101-010	TEControl A	10x1ml	Control plasma for haemostasis	W0103020702 / 30590 B-CTRL-P6101-010HQ
15	P6201-010	TEControl A Plus	10x1ml	Control plasma for haemostasis	W0103020702 / 30590 B-CTRL-P6201-010J9
16	P5001-010	TEClot Factor II	10x1ml	Coagulation factor ii ( prothrombin )	W0103020202 / 30542 B-FAC-II-P5001-010ML
17	P5101-010	TEClot Factor V	10x1ml	Coagulation factor v	W0103020204 / 30544 B-FAC-V-P5101-010AN
18	P5201-010	TEClot Factor VII	10x1ml	Coagulation factor vii	W0103020205 / 30545 B-FAC-VII-P5201-0107B
19	P5301-010	TEClot Factor VIII	10x1ml	Coagulation factor viii	W0103020207 / 30547 B-FAC-VIII-P5301-01097
20	P5401-010	TEClot Factor IX	10x1ml	Coagulation factor ix	W0103020208 / 30548 B-FAC-IX-P5401-0106C
21	P5501-010	TEClot Factor X	10x1ml	Coagulation factor x	W0103020209 / 30549 B-FAC-X-P5501-010EQ
22	P5601-010	TEClot Factor XI	10x1ml	Coagulation factor xi	W0103020210 / 30551 B-FAC-XI-P5601-010A8
23	P5701-010	TEClot Factor XII	10x1ml	Coagulation factor xii	W0103020211 / 30552 B-FAC-XII-P5701-010CJ

(Recital 23 of Directive 98/79/EC on In Vitro Diagnostics Medical Devices) - Annex A - general IVD



# KONFORMITÄTSERKLÄRUNG

## DECLARATION OF CONFORMITY

Doc#100/07-2021

Wir / We

### TECO Medical Instruments Production and Trading GmbH

Name des Herstellers / Manufacturer's name

**Dieselstrasse 1, 84088 Neufahrn, Germany**

Anschrift / Address

erklären in alleiniger Verantwortung, dass die unten gelisteten IVD Zubehör Produkte:  
*declare under our own responsibility, that the IVD accessories products, listed below:*

Doppelküvette / <i>Double cuvette</i>	Ref. 19 000 02
Einzelküvette / <i>Single cuvette</i>	Ref. 20 000 02, 24 100 00
4-fach Küvette / <i>Cuvette 4 pos/ea</i>	Ref. 80 521 10
6-fach Küvette / <i>Cuvette 6 pos/ea</i>	Ref. 80 560 00
6-fach Küvette (micro) / <i>Cuvette 6 pos/ea (micro)</i>	Ref. 80 570 00

allen anwendbaren Anforderungen folgender Richtlinien entsprechen: *meet all applicable requirements of:*

1. Richtlinie 98/79/EG über In-vitro Diagnostika und ihrem Zubehör, klassifiziert gemäß Artikel 9 als: "alle anderen Produkte"- im Sinne von Zubehör zu In vitro Diagnostika gemäß Artikel 1.

*1. Directive 98/79/EC on In-vitro diagnostic medical devices and their accessories, classified according to article 9 as: "all other products" – and in term of accessories for in vitro diagnostics according to article 1.*

2. Richtlinie 2011/65/EU (RoHS III)

*2. Directive 2011/65/EU (RoHS III)*

Das QM-System des Herstellers ist zertifiziert nach:

*The QM-system of the manufacturer is certified for:*

**EN ISO 13485:2016**

***EN ISO 13485:2016***

Konformitätsbewertungsverfahren gemäß:

*Conformity assessment procedure according to:*

Gemäß Anhang III der Richtlinie 98/79/EG

*According to Annex III of Directive 98/79/EC*

Ort und Datum der Unterzeichnung:  
Place and date of issue:

Neufahrn, 27.07.2021  
Neufahrn, July 27, 2021

Matthias Dieckmann  
General Manager



# TECO

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PRODUCTION+TRADING GMBH

Dieselstraße 1  
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fax: +49-8773/707 80-29

Neufahrn, 26/04/2018

## TO WHOM IT MAY CONCERN

We confirm that the instruments Coatron X Eco, Coatron X Pro and Coatron X Top have a closed cuvette system. Cuvettes have to be purchased with voucher identification code from TECO GmbH.

  
Christian Hoetzel  
General Manager  
TECO Germany



Quality Management  
We are certified  
Voluntary participation in regular  
monitoring according to ISO 9001:2008



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# CERTIFICATE

for: **Mr. Vitalie Goreacii**

---

Company: **Sanmedico SRL**  
Str. Petricani 88/1, oficiul 10  
Chisinau - Rep. Moldava MD-2059  
MOLDOVA

have participated with success at the intensive training session:

**Application and technical training for following instruments:**

- **Coatron X series**
  - **Installation**
  - **Application**
  - **General use, also in combination with TECAM Software**
  - **Technical and After Sales Service**

Supervisors: **Mr. Chr. Hoetzi and Mrs. Wendy Guo**

---

Place of Training: **TECO – Germany**

Date: **November 18<sup>th</sup>, 2019**



Christian Hoetzi  
General Manager





TOP  
INNOVATION  
2017 - 2018

Clotting  
Chromogenic  
Immunturbidimetric

# Coatron

Semi-automated  
Coagulation Analyzer Series

With 1, 2 or 4 optical channels



# TECO

Innovation in Coagulation

# A new area of manual and semi-automated Coagulation Analyser rise up

The Coatron X instrument line is a consequent continuation in the development of the Coatron product line. Over 25 years in experience and innovation is the reference for our new Coatron X instrumentation line.

The unique detection principle in combination with the high-level analytical algorithm calculates exact, precise and reproducible results.

Easy in operation – self instructing user dialogue - reliable

## **Highest optical resolution, enlarged optic range, smallest sample and reagent volume**

0.1 mOD, 0 - 3800 mOD, just with 75 µL sample and reagent volume

## **Complete optical analysis**

No further parts required, like balls, stirrers etc.

## **Adaptation of the light level**

Automatic light level adjustment of the optic channels to each sample

## **Exclusion of disturbance**

Stray light reduction, exact temperature control, all parameter are preset

“Complete range of Coagulation Analysis with the highest standard and reliability. The new generation of Coagulation instruments with optical detection are here.”

Coatron X - product family



With 1, 2 or 4 optical channels.

[www.teco-medical.com](http://www.teco-medical.com)

## Prepared for the daily routine and the upcoming requirements

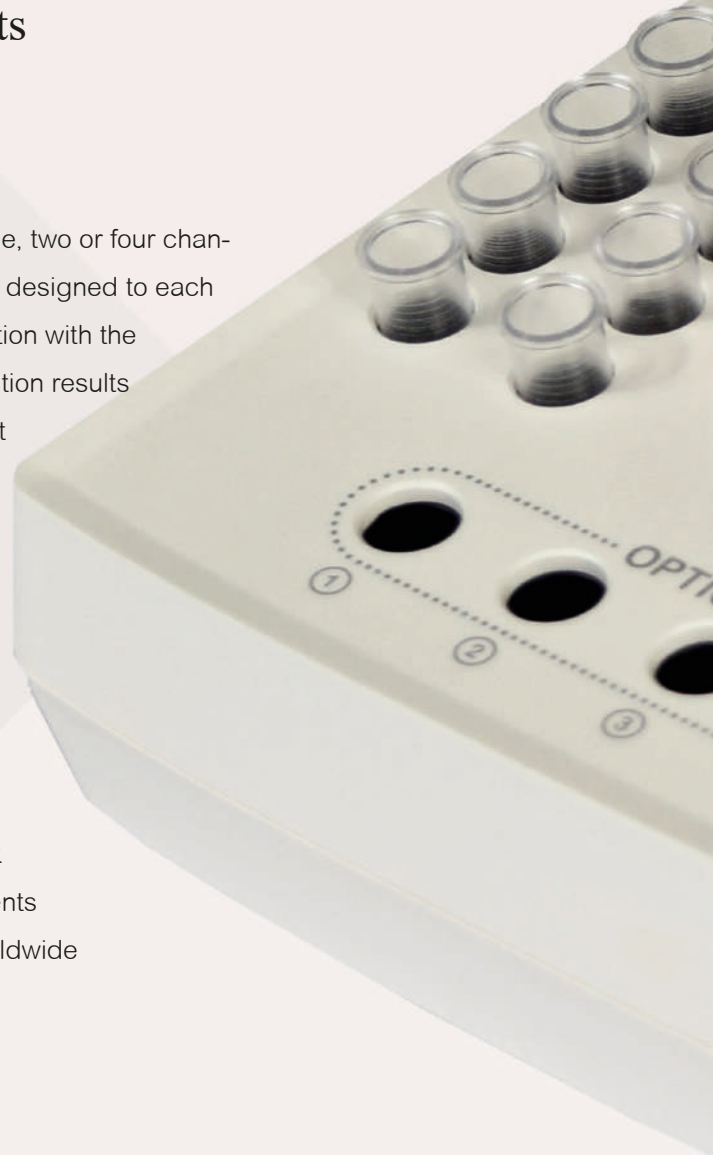
### One instrument – many possibilities

The Coatron X family is prepared to work with one, two or four channels. The built-up and functionality is specifically designed to each instrument version and requirements. The operation with the intuitive user dialogue and handling of the detection results are easy and effective. The possibility to connect the instrument to the **TECO Cloud** offers new perspective of instrument, reagent and consumables verification and handling. The precise and correct patient result is what we want to secure.



### Quality is our basic demand

TECO develop and produce with qualified and specialized companies, located in Germany. High reliability, nearly maintenance free instruments are our benefit. Our reference is 25 years, in worldwide laboratories, with satisfied users.



### TECO Cloud Services – A strong data bank and application service behind

All instrument versions of the Coatron X family are connectable via Bluetooth to Smart-devices, like mobile devices, tablets, etc. with a specific APP or direct access to the TECO Cloud Services.



Coatron	Eco	Pro	Top
General			
Dimensions	230 x 148 x 94 mm (l, b, h)		
Display	Colored touch display 4.3"		
Pre-warm temperature	37°C		
Pre-warm cuvettes (pcs.)	10	20	20
Pre-warm reagent 24mm (pcs.)	1	1	1
Pre-warm reagent 22mm (pcs.)	2	2	2
Pre-warm reagent 11mm (pcs.)	2	2	2
Reagent mixing position	-	1	1
Power values	110-240Vac, 50-60Hz / 5Vdc, 3.3A		
Interfaces			
RS232 (2x)	Printer, Barcode reader		
USB (2x)	Network, Firmware update		
Bluetooth	TECO Cloud, App		
Optic / tests			
Optic channels	1	2	4
Wavelength (nm)	620 (red)	405 (UV)	405 (UV)
Global Coag. tests	PT, APTT, TT, FIB		
Specific Coag. tests	-	individual factors	
Chromogenic Coag. tests	-	AT, PC	
Latex based tests	D-Dimer		
Whole blood tests	PT-B		-



## The details make the difference

### Coatron X

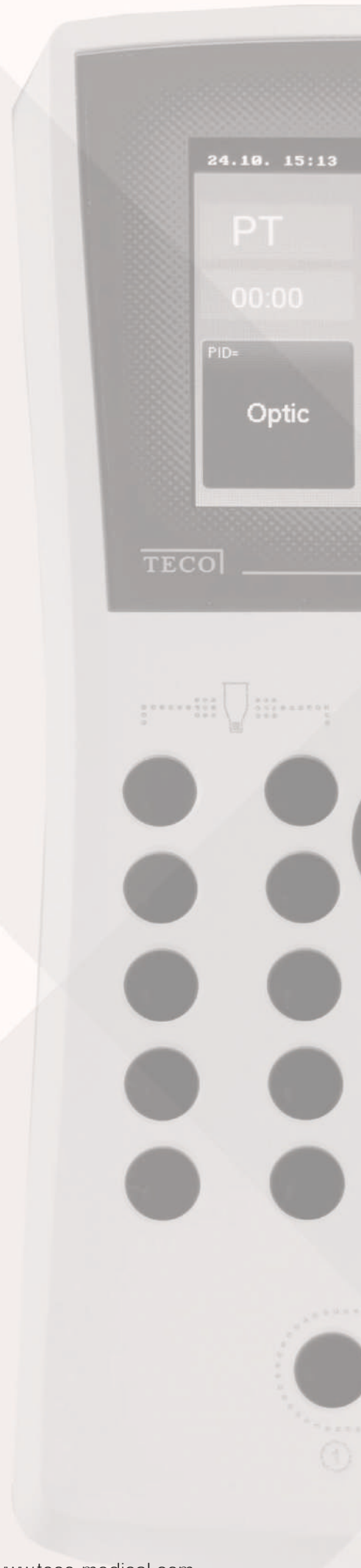
The remarkable details in every single component is achieved by selecting of premium suppliers.

The performance of a high level instrument is strongly depending on the concept in general and the perfect usability to reach the requirements of a modern laboratory analyser.

Priority No. 1 was to get a daily routine reliability and easy-to-use operation.

### Software and connection possibilities

With the Coatron X product family starts a new time line in analysis management and service maintenance. Operation via intuitive, colored touchscreen, as well patient result management are perfectly optimized.



## Operation details

Coatron	Eco	Pro	Top
<b>Operation</b>			
Touchscreen 4.3"	✓	✓	✓
Real time clock	✓	✓	✓
Stopwatch	✓	✓	✓
Language selection	✓	✓	✓
<b>Interfaces</b>			
USB to LIS	✓	✓	✓
Network to LIS (TECAM software required)	✓	✓	✓
<b>Management</b>			
Test calibration	✓	✓	✓
Tracking to Pat.ID, Patient ID, Sample ID or Auto ID	✓	✓	✓
Automatic optic start (no Starterpipette required)	✓	✓	✓
Double determination	✗	✓	✓
Sample management (ID)	✗	✓	✓
Reagent management (ID) (lot und expiry)	✗	✓	✓
Internal result databank	✗	✓	✓
Patient identification with barcode		optional	



### Intuitive operation and control

Clear and easy to operate user dialogue with a high quality colored touchscreen

- Direct usable
- Short learning phase
- Logic, intuitive operation
- Reliable touchscreen surface
- Quick touch response



### For small and mediate laboratory requirements

Concept is suitable for daily routine work in Coagulation laboratories and hospitals

- Three different versions available, depending on number of samples per day
- In maximum up to 4 optic channels available

### Interfaces

#### RS232 (2x)

- For external serial printer and external barcodereader

#### LIS/USB

#### Bluetooth



Integrated barcode scan for reagents.





### **TECO Cloud Services**

#### **A strong data bank and application service behind**

All instrument versions of the Coatron X family are connectable via Bluetooth to Smart-devices, like mobile devices, tablets, etc. with a specific APP or direct access to the TECO Cloud Services.



For trading partners worldwide, please visit our web-page

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**TECO**  
Innovation in Coagulation



# TECO

## Manual de operare

### Seria X Coatron

Eco / Pro / Top



IVD

CE

REP

*Doar pentru diagnosticul in-vitro*

Dispozitive și reagenți pentru coagulare și hemostază

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OPM Revizuirea 1

Program V01.00.39

Document No: 26 900 01

**Reprezentant autorizat în Republica Moldova:**

**SANMEDICO SRL**

**mun. Chișinău, str. Petricani 88/1, of.10**

**tel: (022) 623 032; 060 155 788**

**Actualizări**

VERSIUNEA INSTRUCȚIUNII UTILIZATORULUI	VERSIUNEA PROGRAMULUI
1	1.00.39 (prima ediție)

**Drepturi de autor**

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**Mărcile comerciale**

**Coatron** este marcă comercială a TECO GmbH. Alte denumiri de produse utilizate în acest manual al operatorului sunt mărci comerciale ale companiilor respective.

**Producătorul**

Dispozitivul este produs de  
**TECO GmbH**  
**Dieselstrasse. 1**  
**D-84088 Neufahrn, Germania**

Telefon: +49 (0) 8773 70780-0  
 Fax: +49 (0) 8773 70780-29  
 Internet: <http://www.teco-gmbh.com>

**Garanție**

**Coatron X** are o garanție de un an după livrare sau după prima instalare. Garanția acoperă orice defecte de material, funcționalitate sau manoperă (a se vedea, de asemenea, „Termenii și condițiile generale”). Prima instalare trebuie înregistrată în „Registrul de instalare”.

Garanția expiră în caz de defecțiuni cauzate de:

- Accident, neglijență în întreținere și înșelăciune, abuz sau utilizarea necorespunzătoare.
- Folosirea de reactivi, materiale consumabile sau piese de schimb neautorizate.
- Deservirea neautorizată. Orice reparație sau deservire trebuie efectuată de persoane autorizate.

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## 1. INTRODUCERE

Acest dispozitiv a fost fabricat în condiții de maximă eficiență în ceea ce privește siguranța și funcționalitatea sa de inginerie. Pentru a menține această condiție și a asigura o operare fără riscuri, operatorul trebuie să respecte avertismentele și informațiile de siguranță din acest manual de utilizare.



**Folosiți Coatron X numai în conformitate cu instrucțiunile din acest manual de utilizare. În caz contrar, producătorul exclude răspunderea pentru daunele aduse dispozitivului Coatron X, pacienților sau operatorilor.**

### 1.1 SIMBOLURI

Următoarele simboluri standard sunt utilizate în acest manual:

SIMBOL	Semnificația	Explicația
Courier	<b>Informație</b>	Buton pe tastatură
CAPS	<b>Informație</b>	Mesaj pe ecran
	<b>Citare</b>	Indică <u>informație importantă</u> și sfaturi
	<b>Informație</b>	Descrie reacția Coatron X la intrarea făcută de operator.
	<b>Atenție</b>	Risc de posibile daune de sănătate sau daune considerabile echipamentului dacă nu se ține cont de avertisment.
	<b>Pericol</b>	Risc potențial pentru personalul care operează cu echipament sau pentru dispozitiv din cauza șocului electric.
	<b>Pericol biologic</b>	Echipamentul poate fi potențial infecțios datorită probelor și reactivilor folosiți.
	<b>Radiație laser</b>	Evitați expunerea directă a ochilor

## 1.2 IMAGINI CU DISPOZITIVUL



*Ecranul principal*

*Ecran tactil color*

*Zona completată este preîncălzită până la 37°C*

*1 x poziția reagentului Ø24mm*

*1 x poziția reagentului Ø22mm*

*1 x poziția reagentului Ø22mm, amestecat*

*2 x pozițiile reagentului Ø13mm*

*20 x pozițiile de incubare ale cuvetelor*

*4 x pozițiile de măsurare a cuvetelor*

*(depinde de versiunea ECO/PRO/TOP)*

*Imaginea 1: Vedere de sus*



5V: Cablul de energie

PC: LIS sau PC

DESERVIRE: Actualizarea programului

IMPRIMANTĂ: Impriantă în serie

CODUL DE BARE: Scanner de mână a codurilor de bare

*Imaginea 2: Vedere din spate*



5V: Cablul de energie

PC: LIS sau PC

DESERVIRE: Actualizarea programului

IMPRIMANTĂ: Impriantă în serie

CODUL DE BARE: Scanner de mână a codurilor de bare

*Imaginea 3 : Vederea laterală cu slotul pentru codul*

de bare




### 1.3 UTILIZAREA PROPUȘĂ



Familia COATRON-X este proiectată pentru a efectua teste coagulometrice, cum ar fi PT, PTT, TT, fibrinogen, teste cu un singur factor, teste cromogene și imunoturbidimetrice (de exemplu, antitrombină, D-dimer etc.) pe plasmă citrată umană. Aparatul trebuie utilizat în scopurile preconizate și în condiții tehnice perfecte, de către personal calificat, în condiții de muncă și operațiuni de întreținere, așa cum este descris în acest document. Este conceput pentru mediu de laborator sau clinic și pentru a fi operat de un utilizator instruit. Nu este destinat uzului casnic.

#### 1.3.1 COMPARAȚIA DISPOZITIVELOR COATRON X

Coatron-X este disponibil în trei versiuni diferite numite Eco, Pro sau Top.

Coatron-X	Eco	Pro	Top
			
Canalele optice	1	2	4
Lungimea de undă optică	620nm	405nm	405nm
Cuvete, volum total	Singular, 75μL	Singular, 75μL	Singular, 75μL
Analize totale de coagulare	PT+aPTT+Fib+TT		
Analize speciale de coagulare	-	Toți factorii	Toți factorii
Analize cromogene	-	AT, PC	AT, PC
Analize avansate latex	D-Dimer		
Testarea sângelui integru	Da (PT INR+%)	Nu	Nu
Ecran	TFT 4.3" , 480x272 , 18bit color, multi-touch		
Parametrii fizici	Forma X 225x150x90mm (LxlxÎ) cu imprimeu tampon		
Blocarea reagenților și optică	Preîncălzit la 37°C		
Preîncălzirea cuvetelor	10x	20x	20x
Preîncălzirea reagenților, 24mm	1x		
Preîncălzirea reagenților, 22mm	2x		
Preîncălzirea reagenților, microtuburi	2x		
Agitator de reagenți	nu	1x	1x
Interfața pentru imprimanta din serie	Da		
Interfață pentru scannerul de coduri de bare portabil	Da		
Modulul scannerului de coduri integrat	opțional		
LIS, USB	Da		



Actualizarea programului, USB	Da
Bluetooth V4.0	Urmează

Funcțiile utilizatorului	Eco	Pro	Top
Utilizare intuitivă prin Touchscreen		Da	
nu este necesară experiență sau pregătire			
Algoritmul de coagulare TECO avansat		Da	
Cel mai bun din experiența de 25 de ani			
Lotul de reagent dublu	Nu	Da	Da
gestionați două loturi diferite pentru fiecare test			
Barcodul de reagenți		Da	
LOT de intrare + Detectare LOT de expirare sau LOT pozitiv			
Calibrarea testului		Da	
LOT, expirare și maximum 5 puncte pentru fiecare test			
Codul de bare a pacientului		Da	
Introduceți ID-ul pacientului prin scenerul de coduri de bare până la 16 caractere			
Baza de date a rezultatelor	Nu	Da	Da
Salvați rezultatele în dispozitiv			
Determinarea dublă	Nu	Da	Da
Rulați pacientul de două ori și afișați valoarea medie			
Funcția cronometru	1x	2x	4x
Cronometrați timpul de incubare			
Identificarea rezultatelor		Da	
Numărul de identificare al pacientului, a mostrei sau autoidentificare			
Ceas în timp real		Da	
Funcția dată și timp			
Modificarea limbii		Da	
EN,ESP, ITA, FR,DE – în continuare ca opțiuni			
Începeți testarea la adăugarea reagentului		Da	
Nu este necesară o pipetă de start scumpă			
Vizualizați curba de reacție		Da	
Este necesar programul Tecmoni			
Link către LIS prin USB		Da	
Protocolul programului TECAM SMART			
Link către LIS prin rețea / ASTM		Da	
Este necesar programul TECAM SMART			

### 1.3.2 METODE DE TESTARE

Următoarele teste sunt furnizate pentru a detecta afecțiunile sistemului de coagulare uman, care pot fi sângerare sau tromboză și monitorizarea medicamentelor anti-coagulare precum Heparin sau Marcumar.

Testul	Denumirea	Specimen	Coatron X		
			Eco	Pro	Top
<b>PTB</b>	Timpul de protrombină	Sînge	Da	Nu	Nu
<b>PT</b>	Timpul de protrombină	Plasmă	Da	Da	Da
<b>aPTT</b>	Timpul protrombinic parțial activat	Plasmă	Da	Da	Da
<b>FIB</b>	Fibrinogenul	Plasmă	Da	Da	Da
<b>TT</b>	Timpul trombinei	Plasmă	Da	Da	Da
<b>AT</b>	Antitrombina	Plasmă	Nu	Da	Da
<b>DD</b>	D-Dimer	Plasmă	Da	Da	Da
<b>PC</b>	Proteina C	Plasmă	Nu	Da	Da
<b>Factors</b>	Factorii II, V, VII, VIII, IX, X, XI, XII	Plasmă	Nu	Da	Da

### 1.3.3 COLECTAREA MOSTRELOR

Tipul: Plasmă citrată umană  
 Colectarea: puncția venei, 1:10 citrat de sodiu mixt 3.2% (0.105M)  
 Centrifugarea: 10 min la 1500g  
 Păstrarea: Max 4h după colectare, la temperatura camerei

Bilirubina: < 50mg/dl  
 Hemoglobina: < 2000mg/l  
 Trigliceridele: < 50g/l

#### Specimen destinat pentru PTB (Coatron X Eco)

Tipul: sânge capilar din puncția degetului, sânge integru citrat



**În cazul în care există diferențe față de elementele de siguranță ale reactivului, urmați întotdeauna instrucțiunea din cutie.**

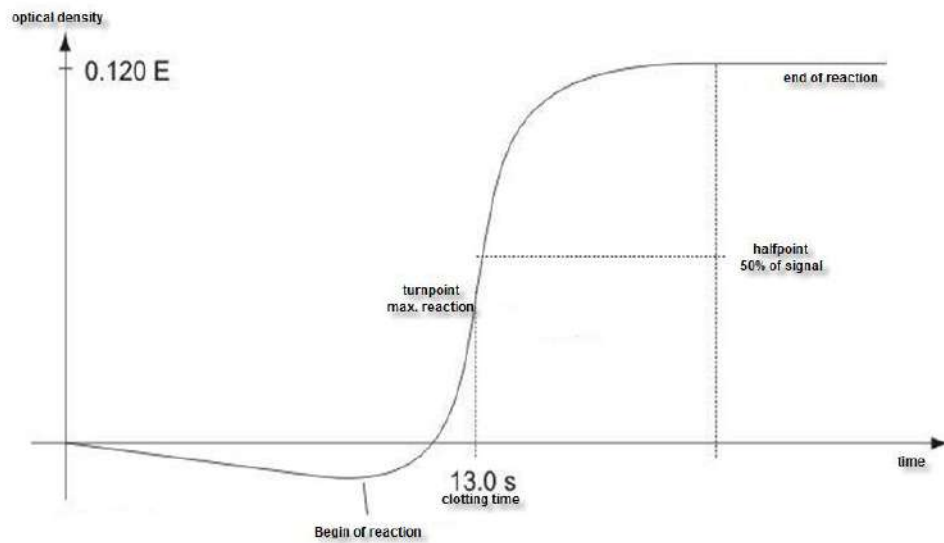
### 1.3.4 PRINCIPIUL DE MĂSURARE

Detectarea coagulării plasmatică se bazează pe principiul fotometric. Nu sunt necesare accesorii mecanice precum bilele de amestecare. Plasma de sânge este turnată într-o cuvă. Se adaugă reactivi speciali, care inițiază coagularea sângelui. Cuvă este expusă prin lumină ultravioletă în timpul procesului de coagulare. Când proba începe să coaguleze, se măsoară o schimbare a absorbției luminii. Timpul de la începerea măsurării până la schimbarea luminii (punct de cotitură) se numește timp de coagulare și se exprimă în secunde [s]. Conversia timpului de coagulare într-o unitate de test specifică este una folosind o interpolare liniară, hiperbolică, semi-logaritmică sau dublu-logaritmică a punctelor de calibrare stocate. Modelul matematic actual este tipărit în „SETUP TEST”. Valorile în afara domeniului de calibrare sunt calculate prin extrapolare și marcate ca " \* ".

Unitate	Informație	Locurile decimale	Valoare maximă
s	secunde	1	-
%	activitate	1	180.0
U	unități	0	999
INR	Raport int.	2	30.00
R	raport	2	30.00
NR	raport polonez	0	180
mg/dl		0	900
g/l		2	10.00
IE/ml	Unități int.	2	10.00
mg/l		2	10.00
μg/ml		3	7.000
ng/ml		0	7500
μg/l		0	7500
IU/mL	Unități int.	2	10.00

R = timpul de coagulare / timpul normal  
 NR = 100 \* (timpul normal / timpul de coagulare)  
 INR = Ratio<sup>ISI</sup> (Raport normal internațional)  
 IU/mL = IE/mL = Unități internaționale (1.00 IU/mL = 100 % activitate)

### 1.3.5 METODA DE COAGULARE (PT, APTT,..)



IMAGINEA 4: DETERMINAREA PUNCTULUI DE ÎNTOARCERE ÎN METODA DE COAGULARE

Reacția finală în cascada de coagulare este transformarea fibrinogenului în fibrină catalizată de trombină. Formarea fibrinei are ca rezultat oglindirea (nivel turbidimetric mai mare) în probă, care este măsurată de fotometru și stocată ca dispariție. Rezultatul în câteva secunde este timpul de la începutul reacției până la momentul vitezei maxime de schimbare (punctul de cotitură al reacției). Dispozitivul poate fi comutat și pentru a defini coagularea la jumătatea punctului de reacție.

### 1.3.6 METODA CROMOGENĂ (ANTITROMBINA):

Schimbarea semnalului optic nu este cauzată de reacția de cheag, ci de eliberarea de particule de culoare (pNA), care provoacă o culoare galbenă. Schimbarea culorii este măsurată la 405 nm și exprimată ca „dE/60sec” și proporțională cu concentrația sau activitatea analitului.

### 1.3.7 METODA IMUNOTURBIDIMETRICĂ (D-DIMER):

Schimbarea luminii este cauzată de reacțiile Antigen - anticorp, care au dispersat lumina. Anticorpul se leagă de particulele de latex la amplitudinea reacției optice. Schimbarea luminii este proporțională cu concentrația de antigen precum D-Dimer și exprimată ca dE/120 sec.

## 1.4 INFORMAȚIA CU PRIVIRE LA SIGURANȚĂ

### 1.4.1 INFORMAȚII DE SIGURANȚĂ PENTRU FUNCȚIONARE



Folosiți numai lichidele de curățare și clătire aprobate de producător. Nerespectarea acestui lucru poate duce la măsurări defectuoase sau defecțiuni ale reactivilor Coatron X. Preveniți scurgerile în analizator. În caz contrar, este necesar ca lucrările de întreținere costisitoare să fie necesare!



Efectuați măsurări de control la intervale regulate pentru a vă asigura că analizorul continuă să funcționeze impecabil .



Dacă dispozitivul este utilizat într-o manieră, care nu este specificată de producător, garanția ar putea fi afectată!



Vă rugăm să citiți manualul de utilizare în întregime înainte de operare. Pentru a asigura un nivel ridicat de performanță și pentru a evita erorile utilizatorului.

### 1.4.2 INFORMAȚII DE SIGURANȚĂ PENTRU MATERIALE



Folosiți numai materiale aprobate și etichetate TECO, cum ar fi cuvete, piese de schimb sau reactivi pentru care dispozitivul este destinat și validat.



Consumabile precum cuvete sau vârfuri galbene sunt destinate obiectelor de unică folosință. Utilizarea repetată poate duce la rezultate false din cauza contaminării. Urmați instrucțiunile din circularele pachetului de reactivi. Utilizarea incorectă poate duce la rezultate false.



Nu folosiți materialele după data de expirare. Reactivii IVD în special expirați pot provoca rezultate false.



Controlați funcția corectă a pipetei manuale în fiecare an pentru a asigura rezultate precise.

### 1.4.3 INFORMAȚII DE SIGURANȚĂ PRIVIND RISCUL PENTRU SĂNĂTATE

#### **Sângerare sau tromboză**

Diagnosticul și medicația sistemului de coagulare uman bazat pe rezultate false poate duce la sângerare critică sau tromboză. Pentru reducerea riscurilor, este esențial să urmăriți indicațiile de mai jos.

Provocată din cauza stării de eroare a dispozitivului, a reactivului sau a datelor de calibrare:

Efectuați un control al calității înainte de a rula o serie de probe de pacient sau după reconstituirea unui flacon sau după calibrarea testului pentru a exclude erorile de date ale dispozitivului, reactivului sau calibrării.



Provocată de o pipetă imprecisă:

Validați pipeta în fiecare an și etichetați ultima dată de validare.

Provocat de alocarea falsă a valorilor țintă

Executați standardele interoperaționale de control al calității.

Provocat de apa purificată

Folosiți doar apă purificată pentru a reconstitui controale sau reactivi. Verificați vizual ca apa să nu conțină impurități.

Provocat de reactivul expirat

Nu folosiți reagentul *in vitro* sau materialele după data lor de expirare.

#### **Material contaminant**

Aveți în vedere toate suprafețele și materialele, care ar putea intra în contact cu plasmă sau cu alt lichid biologic, deoarece ar putea fi contaminate cu materiale infecțioase.

Evitați contactul

Purtați mănuși de protecție contra infecțiilor medicale pentru toate lucrările, care implică un contact potențial cu materiale infecțioase și utilizați fiecare pereche de mănuși o singură dată. Folosiți un produs dezinfectant pentru mâini, de ex. Sterilium®, pentru a dezinfecta mâinile după finalizarea lucrărilor.



Aruncați

Materialele infecțioase, cum ar fi deșeurile de cuvă și deșeurile lichide, în conformitate cu legile locale, care reglementează materialele infecțioase.

Condițiile de igienă

Validează sistemul de management igienic în conformitate cu biroul federal german GLP pentru bune practici de laborator sau standarde de calitate similare. Orice deșeuri trebuie considerate potențial infecțioase. Trebuie evitat contactul direct. Sunt necesare mănuși de protecție în timpul funcționării, servirii sau curățării.



#### **Radiație cu lumină LED**

Evitați expunerea directă a ochilor.  
Scannerul intern de coduri de bare CCD este atribuit  
EN 55022:2010 clasa B, EN 62471:2008

### 1.4.4 INFORMAȚII DE SIGURANȚĂ PENTRU CURĂȚARE, ÎNTREȚINERE ȘI DESERVIRE



#### **Despre deservirea autorizată!**

Efectuați numai măsurile de întreținere, reparație și înlocuire enumerate în acest manual de utilizare. O manipulare necorespunzătoare a dispozitivului va anula obligațiile de răspundere ale producătorului și poate face necesară efectuarea apelurilor de servicii, a căror plată nu este acoperită de garanție. Numai Serviciul Clienți autorizat poate efectua reparațiile. Se pot folosi numai piese de schimb originale. Înainte de a efectua orice reparație pe dispozitiv, este foarte important să dezinfectați complet toate piesele posibil contaminate.



#### **Despre curățire și decontaminare!**

Înainte ca dispozitivul să fie scos din laborator pentru eliminare sau întreținere, acesta trebuie decontaminat. Procedura este descrisă în capitolul „Curățare și întreținere” și trebuie efectuată doar de personal autorizat bine instruit, respectând toate măsurile de siguranță necesare.



#### **Certificatul de decontaminare este necesar!**

Dispozitivele, care trebuie returnate trebuie să fie însoțite de un certificat de decontaminare completat de responsabilul de laborator. Dacă nu este furnizat un certificat de decontaminare, laboratorul de returnare va fi responsabil pentru taxele rezultate din neacceptarea dispozitivului de către centrul de deservire.






Aveți în vedere toate suprafețele și materialele care ar putea fi în contact cu plasmă sau cu alt lichid biologic, deoarece ar putea fi contaminate cu materiale infecțioase.



Evitați orice contact direct cu decontaminanți sau dezinfectanți.

### 1.4.5 SIGURANȚA ELECTRICĂ

	<p><b>Precauții:</b></p> <ul style="list-style-type: none"> <li>▪ Evitați lichidele vărsate în sistem. Dar în cazul în care acest lucru se întâmplă, deconectați dispozitivul de la sursa de energie și curățați și uscați toate părțile contaminate.</li> <li>▪ Scoateți cablul de alimentare înainte de a deschide dispozitivul.</li> <li>▪ Nu atingeți piesele electronice în timpul funcționării.</li> <li>▪ Nu folosiți sistemul fără o conexiune adecvată la împământare.</li> <li>▪ Nu întrerupeți niciodată intenționat contactele de protecție la sol.</li> <li>▪ Nu îndepărtați niciodată elementele carcasei, capacele de protecție sau elementele structurale securizate, deoarece acest lucru ar putea expune piese, care transportă curent electric.</li> <li>▪ Asigurați-vă că suprafețele precum podeaua și masa de lucru nu sunt umede în timp ce se lucrează pe dispozitiv.</li> <li>▪ Verificați regulamentul echipamentelor electrice. Conducele sau soclurile defecte trebuie înlocuite fără întârziere.</li> </ul>
	<p><b>Conectați la energie:</b></p> <ul style="list-style-type: none"> <li>▪ Dispozitivul este clasificat în clasa 1 (IEC) și, prin urmare, trebuie să fie legat în mod fiabil și instalat profesional, în conformitate cu reglementările în vigoare privind cablurile electrice și cu standardele de siguranță prevăzute aici.</li> <li>▪ Asigurați-vă că setarea tensiunii de funcționare este corectă înainte de a conecta dispozitivul la rețeaua de alimentare. Citiți capitolul „Instalare” despre condițiile electrice.</li> </ul>
	<p><b>Deconectați de la energie:</b></p> <ul style="list-style-type: none"> <li>▪ Deconectați cablul de alimentare de la priza de perete sau de la sursa de alimentare a dispozitivului.</li> </ul>



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#### 1.4.6 DECLARAȚIA EMC

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Coatron X respectă cerințele privind emisiile și protecția, în conformitate cu GB/T 18268.1 (IEC 61326-1: 2012) și GB/T 18268.26 (IEC61326-2-6: 2012).



Coatron X a fost proiectat, testat și găsit în conformitate cu dispozitivul Clasa A, în conformitate cu GB 4824 (IEC 61000-4). În mediul intern, acest dispozitiv poate provoca interferențe radio, caz în care utilizatorul este obligat să ia măsuri adecvate.



Detectarea mediului electromagnetic este recomandată înainte de a utiliza acest dispozitiv.



Evitați să acționați acest dispozitiv în apropierea unei surse de radiație puternică (de exemplu, o sursă RF ne-ecranată), care poate interfera cu funcționarea corectă a dispozitivului.



Lungimea maximă a cablurilor către dispozitivele externe precum imprimanta, codul de bare sau LIS trebuie să fie mai mică de 3 m pentru a păstra conformitatea cu EMC. (IEC 61326-1:2012)



Nu instalați pe masa metalică de 3m.

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#### 1.4.7 RECICLAREA DISPOZITIVULUI

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Sistemul trebuie decontaminat de deșeurile electrice înainte de transportare către un dispozitiv autorizat.



Dispozitivul trebuie reciclat, așa cum este indicat de DEEE (2002/96/EG).

## 2. INSTALAREA DISPOZITIVULUI COATRON X

### 2.1 OBIECTUL LIVRĂRII

Pachet de livrare standard

- 1 buc. **Coatron X**
- 1 buc. Sursa de energie
- 25 buc. Cuvete de unică folosință
- 5 buc. Tuburi pentru reagenți
- 1 buc Manualul utilizatorului



Imaginea 5: Setul standard la livrare

Opțional sunt disponibile:

- Imprimantă termică
- Cablul imprimantei
- Rulouri de hîrtie pentru imprimantă (5/ea)
- Pipetă cu volum variabil 10 -100  $\mu$ l, simplă
- Programul TECAM Smart

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## 2.2 CONDIȚII DE LUCRU

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**Condițiile de mediu:**

Temperatura de operare	15 - 30 °C
Umiditatea	< 70%
Ridicarea deasupra nivelului mării	< 3.000m
Protecție de praf	Gradul 2
Rezistența la impact	În conformitate cu IEC/EN 61010-1, 8.2.2
Nu este permis	Vibrații, lumină directă a soarelui; expunerea directă la condițiile de aer.

**Condițiile electrice:**

100-240 VAC, 47 - 63Hz, Clasa-1 (61010)

**Condițiile de păstrare:**

0°C to +40°C, maxim 12 luni în ambalajul original

**Condițiile de transportare:**

0°C - +40°C, < 70% umiditate relativă

Nu este definit special. Regulamentul general pentru transport poate fi utilizat.

**Condițiile de igienă:**

Validat conform sistemului de management igienic în conformitate cu biroul federal german GLP pentru bune practici de laborator sau standarde de calitate similare. Orice deșeuri trebuie considerate potențial infecțioase. Trebuie evitat contactul direct. Sunt necesare mănuși de protecție în timpul funcționării, deservirii sau curățării.

## 2.3 DESPACHETAREA DISPOZITIVULUI COATRON X

Verificați ambalajul Coatron X și al accesoriilor pentru eventuale deteriorări vizibile. Dacă ambalajul este deteriorat, contactați compania de transport pentru a putea fi evaluată orice deteriorare a dispozitivului sau a accesoriilor.

Procedurile la prima instalare:

1. Despachetați și așezați dispozitivul în conformitate cu condițiile de funcționare (a se vedea cu un capitol înainte).
2. Conectați la sursa de energie.
3. Porniți și așteptați până la regimul verde.
4. Atingeți Green Status și selectați „print”.
5. Atașați raportul de sistem în „Înregistrare protocol de instalare” sau casetă.
6. Confirmați funcția corectă a sistemului printr-o măsurare de control al calității cu PT și plasmă de control.

Instalarea programului TECAM Smart

1. Deconectați dispozitivul de la calculator.
2. Rulați TECAM setup.exe.
3. Confirmați, atunci când vi se cere să instalați driver-ul Coatron X.
4. Conectați dispozitivul la calculator. PC-ul ar trebui să mesajeze, că a fost găsit un dispozitiv nou.
5. Reporniți TECAM.

Informații suplimentare pot fi citite în capitolul „7” sau ajutorul online TECAM.



*Păstrați materialul de ambalare original pentru transportul ulterior.*

## 2.4 PORNIREA ȘI OPRIREA

### Pornirea

Conectați la sursa de energie.

Dispozitivul necesită aproximativ 15 min pentru încălzirea blocului optic la 37 ° C. După aceea este gata pentru măsurare, care este indicat cu un LED verde pe afișaj.

### Oprire

Aparatul nu acceptă întrerupător de alimentare. Trebuie să se deconecteze de la energie.

### Regim de așteptare

Comutarea sistemului în standby după 2 min de funcționare inactivă. În standby, luminozitatea afișajului este redusă pentru a economisi durata de viață a afișajului și pentru a reduce consumul de energie.

### Regimul "somn"

Deschideți meniul și atingeți butonul „Sleep”.

Meniul este afișat în partea de sus a ecranului și este disponibil numai dacă nu există nici măsurare. Consumul de energie în timpul somnului este de 0,2W.

### "Trezirea"

Ecranul tactil.



*Nu există niciun risc de deteriorare a sistemului sau de pierdere de date. Sistemul poate fi (de) conectat în orice situații de operare.*

## 2.5 ÎNREGISTRAREA

Producătorul trebuie informat despre data primei instalări. Pentru aceasta, navigați pe site-ul web TECO GmbH [www.teco-gmbh.com](http://www.teco-gmbh.com) și conectați-vă cu datele contului dispozitivului, care sunt afișate în timpul pornirii sau a ecranului cu informații despre sistem sau pe placa de dispozitive.

User=            S/N      Numărul de serie, de exemplu 0104000005

Pass=            PIN      Numărul de identificare al produsului, de exemplu 1234 5678 90

## 2.6 GARANȚIA

Termenul de garanție va începe din data livrării sau înregistrării (prima instalare).

### 3. OPERAREA CU DISPOZITIVUL COATRON X

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Coatron X este controlat în totalitate prin ecran tactil.

- Atingere scurtă: Funcția este executată la atingere
- Atingerea lungă: Funcția este repetată de 10 ori
- Textul butonului gri: Funcția este oprită

În timpul măsurării active, unele funcții din meniu nu sunt vizibile sau afișate cu text gri. Opriiți măsurarea pe toate canalele pentru a reactiva butoanele.

#### 3.1 GHIDUL RAPID

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##### Cum se execută o măsurare PT:

1. Porniți dispozitivul și așteptați starea verde (~ 15min până la 37 ° C).
2. Puneți flaconul PT în blocul de reactiv și lăsați să se incubeze timp de cel puțin 5 min.
3. Schimbați testul canalului 1 în „PT”.
4. Plasați cuva în optică.
5. Introduceți 25 ul de probă în cuvă.
6. Apăsați pe „00:00” și așteptați 30 sec.
7. Apăsați „OPTIC-1” și introduceți un PID sau scanați un cod de bare de probă.
8. Adăugați 50 uL reactiv PT, când „Activ” clipește. Măsurarea va fi începută.
9. Așteptați să se rupă rezultatul sau atingeți butonul optic.

##### Activarea multiplă (cu excepția Coatron ECO)

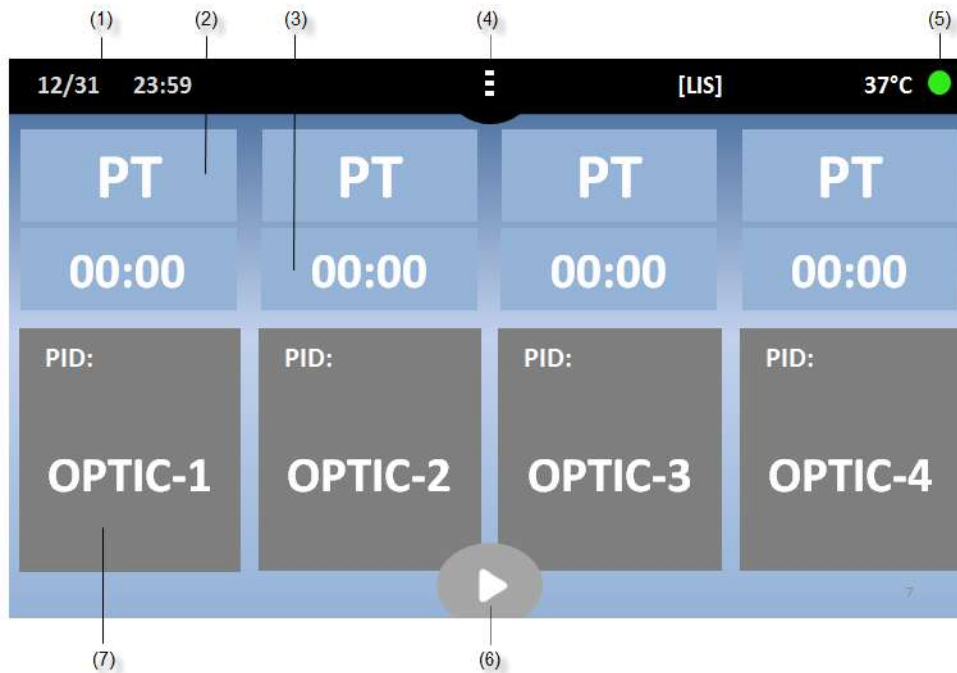
1. Deschideți meniul și setați Auto PID = Pornit.
2. Puneți cuve goale în fiecare canal și pipetați 25 ul de probă pe fiecare cuvă.
3. Apăsați butonul mutlistart.
4. Adăugați 50 ui PT la fiecare cuvă.

##### Cum se introduce o calibrare PT:

1. Porniți dispozitivul și treceți la ecranul de pornire.
2. Atingeți orice buton de testare.
3. Schimbați testul în „PT” și atingeți „Configurare” sau scanați codul de bare al flaconului PT.
4. Introduceți LOT, data de expirare și selectați Unități în „% + INR”.
5. Apăsați din nou butonul „Configurare”.
6. Selectați câmpul de date și schimbați cu butoanele incrementale (- / +). Utilizați funcția de atingere lungă pentru o introducere ușoară.
7. Confirmați cu „OK”.

## 3.2 MĂSURAREA

Primul ecran după pornire



IMAGINEA 6: ECRANUL DE BAZĂ COATRON X TOP

Butonul	Titlul	Utilizarea funcției
(1)	Data și timpul Testarea	Redactarea datei
(2)	curentă	Modificarea testului
(3)	Taimer Meniu sau	Start/Resetarea taimerului sau alarmei
(4)	Acasă	Deschideți meniul sau reveniți la principal
(5)	Verde sau Roșu	Deschideți informațiile despre sistem
(6)	Multistart	Activați toate canalele Channel-1 este inactiv. Atingeți pentru a introduce un
(7)	Optic-1	nou PID și activați Canalul este activ. Atingeți sau adăugați reactiv pentru a începe
(7)	Activ Portocaliu	
(7)	intermitent Rezultatul	Măsurarea continuă. Atingeți pentru a opri măsurarea
(7)	curent	Atingeți pentru a introduce un nou PID

## Altele

eșantion cod de bare	Citiți ID-ul pacientului și urmăriți activarea gratuită
[LIS]	Vizibil, dacă este conectat cu LIS
LED Verde	Sistemul este gata pentru măsurare
LED Roșu	Indică problemele sistemului. Nu este posibilă nicio măsurare.
37.0°C	Temperatura pe blocul de reactiv.
Butoane gri Contrast	Funcția de utilizare nu este posibilă în timpul măsurării.
Întunecat	Modul de salvare. Atingeți pentru a reactiva.



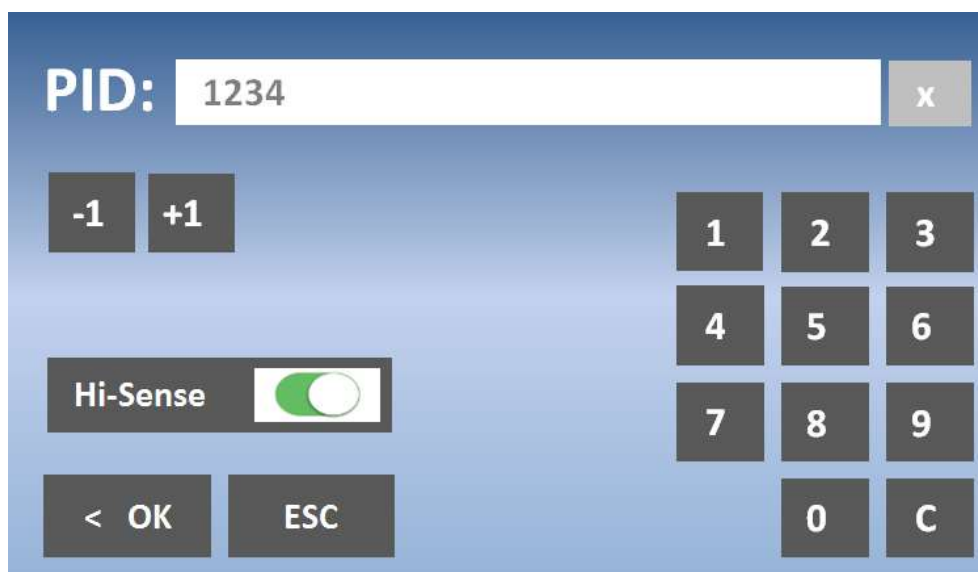
IMAGINEA 7: ECRANUL ÎN TIMPUL MĂSURĂRII

## Butonul (7) în timpul măsurării

PID	Numărul de identificare al pacientului (maxim 16 cifre)
Rezultat	PT = 12.5s, 115% 0,91 INR +++ nici o reacție de cheag nu a fost detectată în timp de execuție
Indicator	f = fibrinogen foarte scăzut (cheag slab) F = fibrinogen foarte mare (cheag puternic) * = Rezultatul nu corespunde cu calibrarea X = valoarea dublă deviază mai mult decât 15%
Err	T = temperatura nu este la 36 - 38°C E = reagent expirat S = intensitatea luminii este prea joasă
mOD	absorbție optică curentă. O schimbare a valoare > 50mOD indică o reacție de cheag în curs.
Taimer	Ora curentă de măsurare



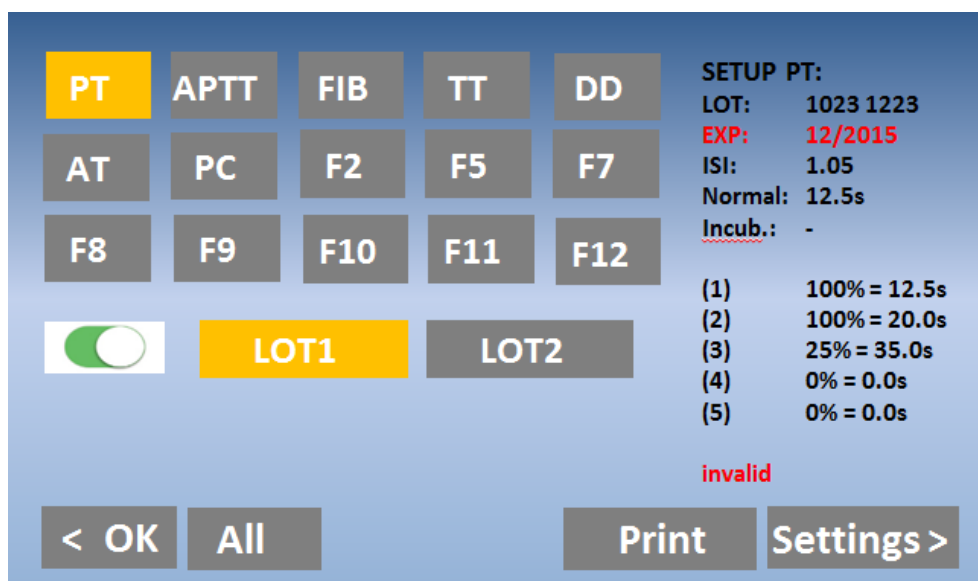
### 3.3 INTRODUCEREA INFORMAȚIEI DESPRE PACIENT



IMAGINEA 8: INTRODUCEREA NUMĂRULUI DE IDENTIFICARE AL PACIENTULUI

Buton	Titlu	Funcția utilizată
Taste numerice	0-9, C, X	Modificați sau ștergeți NIP
Incrementa	-1 / +1	Măriți NIP. Utilizați posibilitatea de atingere lungă pentru modificarea ușoară.
Hi-Sense	Hi-Sense	Pornește sensibilitatea foarte înaltă de detecție. Util pentru mostre sau rezultate "+++".
Apăsarea lungă	-	Apăsați butonul > 2 sec
Codul de bare mostră	-	Setați numărul de identificare la codul de bare

## 3.4 ALEGEREA TESTULUI



IMAGINEA 9: ALEGEREA TESTULUI LA COATRON X PRO/TOP

Butonul	Titlul	Utilizarea funcției
<b>Butoanele de testare</b>	PT – F12	Alegeți testul
<b>On / Off</b>	On / Off	Activați două LOT-uri pe test (nu sunt disponibile) pentru Coatron X Eco)
<b>LOT 1/2</b>	LOT 1/2	Încărcați datele LOT 1 sau 2 de la EEPROM
<b>OK</b>	OK	Confirmați testul pentru canalul curent
<b>Toate</b>	Toate	Confirmați testul pentru toate canalele
<b>Setările</b>	Setările	Schimbați calibrarea testului
<b>Print</b>	Print	Tipăriți setarea testului curent

Codul de bare al reagentului

-

Selectați testul curent și lotul.  
Un semnal sonor lung indică codul de bare sau LOT-ul nevalide.

SETAREA PT

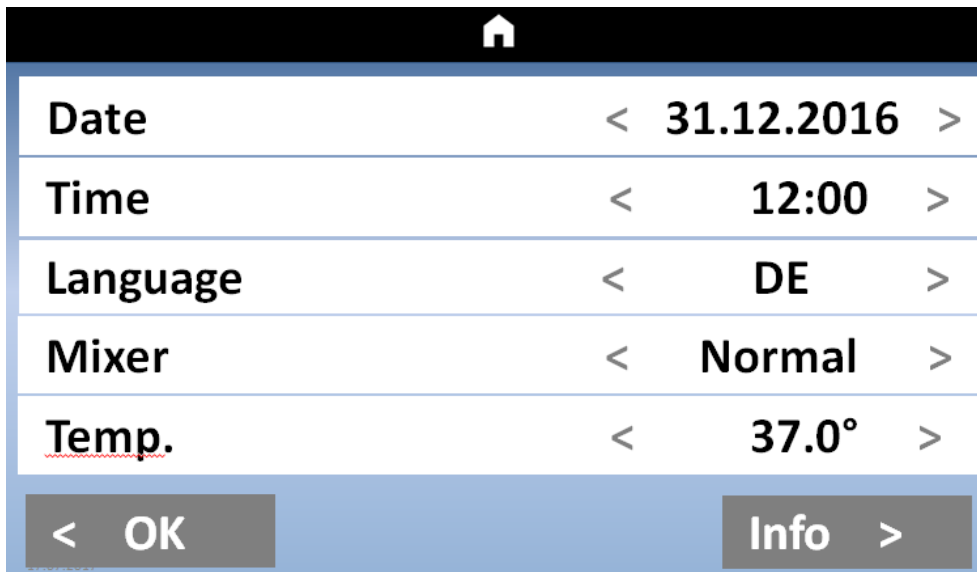
-

Date de calibrare a lotului și testului curent.  
Valorile roșii indică date nevalide.

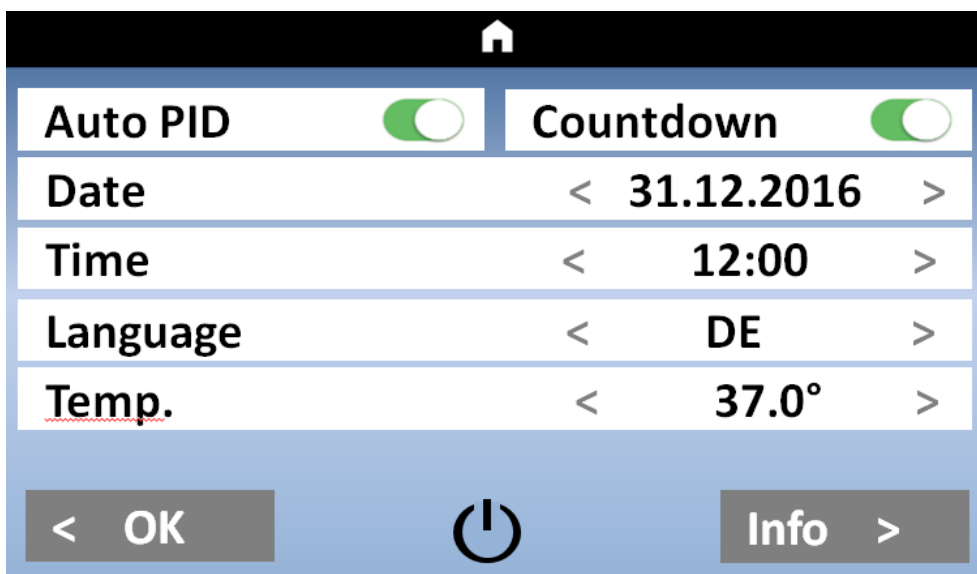
### 3.5 SETĂRILE DE SISTEM



IMAGINEA 10: MENIUL RAPID COATRON X PRO/TOP

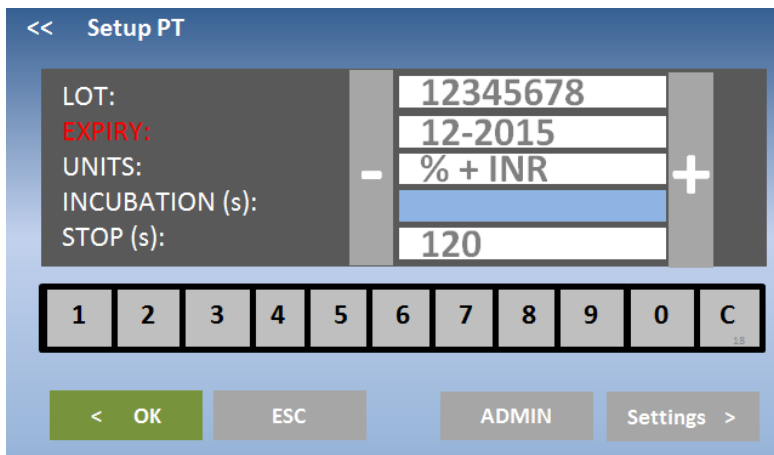


IMAGINEA 11: SETĂRILE DE SISTEM COATRON X PRO/TOP

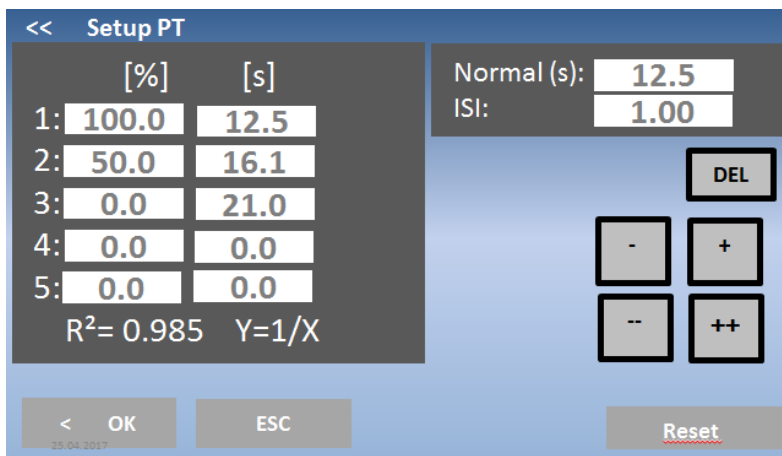


IMAGINEA 12: SETĂRILE DE SISTEM COATRON X ECO

### 3.6 SETĂRILE TESTULUI

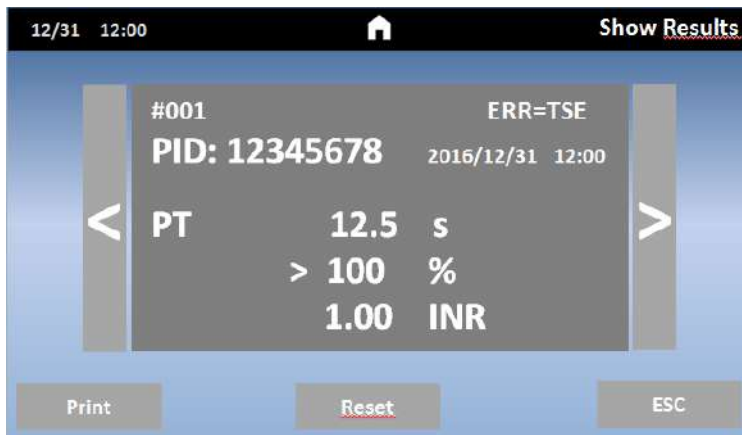


IMAGINEA 13: SETĂRILE TESTULUI 1



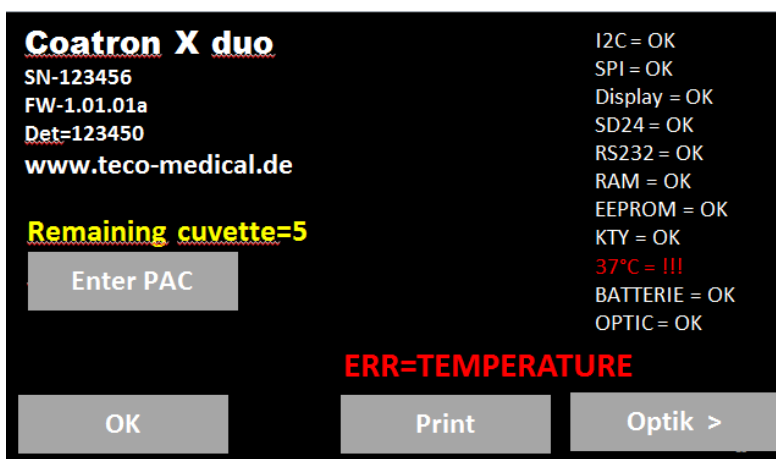
IMAGINEA 2: SETĂRILE TESTULUI 2

### 3.7 ANALIZAREA REZULTATELOR



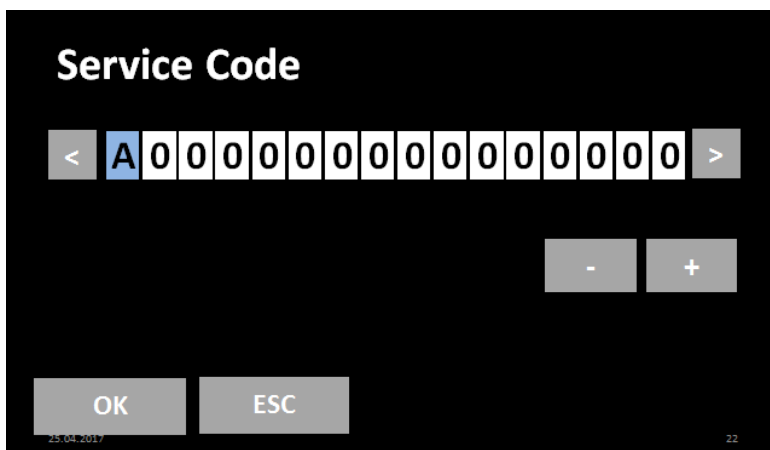
IMAGINEA 15: ANALIZAREA REZULTATELOR COATRON X PRO/TOP

### 3.8 INFORMAȚIA CU PRIVIRE LA SISTEM



IMAGINEA 16: INFORMAȚIA DESPRE SISTEM

### 3.9 INFORMAȚIA PRIVIND INTRODUCEREA TICHETELOR



IMAGINEA 17: INFORMAȚIA PRIVIND INTRODUCEREA TICHETULUI

## 4. TESTE DE COAGULARE DE BAZĂ

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### 4.1 DETERMINAREA PT DIN PLASMĂ

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#### Cum se execută o măsurare PT:

1. Porniți dispozitivul și așteptați aprinderea stării verzi (~ 15 min până la 37 ° C).
2. Reconstituiți reactivul PT și așteptați 30-60 min înainte de pasul următor.
3. Introduceți flaconul PT în blocul de reactiv + bara de agitare și lăsați să incubeze timp de cel puțin 5 min.
4. Schimbați testul canalului 1 în „PT” apăsând pe testul curent.
5. Puneți cuva goală în optică.
6. Introduceți 25 ul de probă în cuvă.
7. Apăsați „00:00” pentru a porni cronometrul și așteptați 30 de secunde.
8. Apăsați „OPTIC-1” și introduceți un numărul de identificare al pacientului sau scanați un cod de bare de probă.
9. Adăugați 50 uL reactiv PT, când „Active” clipește. Măsurarea va începe automat la adăugarea reactivului.
10. Așteptați rezultatul sau atingeți butonul optic pentru a anula.

#### Activarea multiplă (cu excepția dispozitivului Coatron ECO)

1. Deschideți meniul și setați Auto NIP = Pornit.
2. Puneți cuve goale în fiecare canal și pipetați 25 ul de probă pe fiecare cuvă.
3. Apăsați butonul multistart.
4. Adăugați 50 ul PT în fiecare cuvă de la stânga la dreapta.

#### Cum se calibrează:

1. Reconstituiți calibratorul și așteptați 15-30 min înainte de a continua cu pasul următor
2. Calibratoare.  
Valoarea țintă a calibratorului este starea la certificat. Îmi asum 100% ca exemplu  
Soluția IBS, Owrens sau NaCl2 pot fi utilizate ca diluant pentru probă
  - a. 100%: Pipetați calibrul 100 μl în tubul gol
  - b. 50%: Pipetați 100 uL 100% calibrator + 100 ul diluant în tubul gol
  - c. 25%: Pipetați 100 uL 50% calibrator + 100 ul diluant în tubul gol
  - d. 12,5%: Pipetați 100 uL 25% calibrator + 100 ul diluant în tubul gol
3. Rulați toate cele 4 calibrate ca pacienții și notați timpul de coagulare  
(se recomandă efectuarea determinării duble)
4. Introduceți setările PT și introduceți
  - a. LOT corect, Exp (citiți codul de bare al etichetei flaconului)
  - b. setați UNITATE la „INR +%”
  - c. Timp normal de intrare (= 100% rezultat) + ISI (a se vedea flaconul)
  - d. % Calibrare de intrare



## 4.2 DETERMINAREA PT DIN SÎNGE CAPILAR

### Cum se execută o măsurare PT-B din sângele capilar:

1. Porniți dispozitivul și așteptați starea verde (~ 15 min până la 37 ° C).
2. Schimbați testul în „PTB” apăsând pe testul curent.
3. Reconstituiți PT-B cu componenta-1 (diluant) și așteptați 30-60 min înainte de pasul următor.
4. Adăugați componenta-2 (CaCl<sub>2</sub>) în PT-B și așteptați din nou timp de 30-60 min înainte de pasul următor.
5. Puneți cuva goală în optică sau în pre-incubare.
6. Introduceți 150 ul de PT-B în cuvă. Cuva trebuie folosită în următorii 10 minute.
7. Închideți flaconul PT-B și păstrați-l în frigider până la următoarea utilizare. Reactivul este stabil timp de 30 de zile.
8. Apăsați „OPTIC-1” și introduceți un NIP (număr de identificare al pacientului) sau scanați un cod de bare de probă.
9. Când „activ” clipește, străpungeți degetul și pipetați 15μL de sânge capilar în cuvă.
10. Măsurarea ar trebui să înceapă. Este important să amestecați în cuvă. Pentru aceasta coborâți pipeta în cuvă și pompați 10-15x în sus și în jos. Terminați amestecarea celei mai recente probe atunci când numărătoarea inversă ajunge la zero.

### Cum se calibrează PTB

1. Reconstituie calibratorul cu 1,7mL și așteaptă 15-30min
2. Calibratoare.  
Valoarea țintă a calibratorului este starea la certificat. Îmi asum 100% ca exemplu  
Soluția IBS, Owrens sau NaCl<sub>2</sub> pot fi utilizate ca diluant pentru probă
  - a. 100%: Pipetați calibrul 100 μl în tubul gol
  - b. 25%: pipetați 100ul 100% calibrator + diluant 500 ul în tubul gol
3. Rulați toate cele 4 calibrate ca pacienții și notați timpul de coagulare
4. Introduceți setările PTB și introduceți
  - a. LOT corect, Exp (citiți codul de bare al etichetei flaconului)
  - b. setați UNITATE la „INR +%”
  - c. Timp normal de intrare (= 100% rezultat) + ISI (a se vedea flaconul)
  - d. % Calibrare de intrare

## 4.3 DETERMINAREA APTT

### Cum să executați o măsurare aPTT:

1. Porniți dispozitivul și așteptați starea verde (~ 15 min până la 37 ° C).
2. Schimbați testul în „APTT” apăsând pe testul curent.
3. Puneți CaCl în dispozitiv, lăsați să se incubeze timp de cel puțin 5 min.
4. Puneți cuva goală în optică sau în pre-incubare.
5. Introduceți 25 ul de probă în cuvă.
6. Introduceți 25 uL de reactiv aPTT rece în cuvă.
7. Apăsați „00:00” pentru a porni cronometrul și așteptați 180 de secunde.
8. Cu puțin înainte de sfârșitul incubării, apăsați „OPTIC-1” și introduceți un NIP sau scanați un cod de bare.
9. Adăugați 25 ul de CaCl, când „Active” clipește. Măsurarea va începe automat.
10. Așteptați rezultatul sau atingeți butonul optic pentru a anula.

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## 4.4 DETERMINAREA FIB

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### Cum să executați o măsurare FIB:

#### Metoda nr.1

1. Porniți dispozitivul și așteptați starea verde (~ 15 min până la 37 °C).
2. Schimbați testul în „FIB” apăsând pe testul curent.
3. Reconstituiți reactivul FIB și așteptați 30-60 min înainte de pasul următor.
4. Puneți flaconul FIB nu în blocul de reactiv. Temperatura camerei este potrivită.
5. Puneți cuva goală în optică.
6. Introduceți 10 uL de probă în cuvă.
7. Introduceți 90 uL de tampon IBS în cuvă.
8. Apăsați „00:00” pentru a porni cronometrul și așteptați 30 de secunde.
9. Apăsați „OPTIC-1” și introduceți un NIP sau scanați un cod de bare de probă.
10. Adăugați 50 µL de reactiv FIB, când „Active” clipește. Măsurarea va începe automat la adăugarea reactivului.
11. Așteptați rezultatul sau atingeți butonul optic pentru a anula.

#### Metoda nr.2

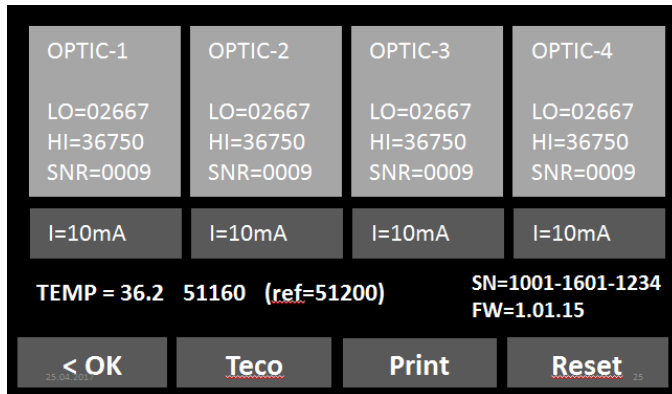
1. Porniți dispozitivul și așteptați starea verde (~ 15 min până la 37 °C).
2. Schimbați testul în „FIB” apăsând pe testul curent.
3. Reconstituiți reactivul FIB și așteptați 30-60 min înainte de pasul următor.
4. Puneți flaconul FIB nu în blocul de reactiv. Temperatura camerei este potrivită.
5. Pipetați 50 uL de probă prediluată 1: 10 în cuvă (prediluarea se face cu sol. IBS).
6. Apăsați „00:00” pentru a porni cronometrul și așteptați 30 de secunde.
7. Apăsați „OPTIC-1” și introduceți un NIP sau scanați un cod de bare de probă.
8. Adăugați 25 µL de reactiv FIB, când „Active” clipește. Măsurarea va începe automat la adăugarea reactivului.
9. Așteptați rezultatul sau atingeți butonul optic pentru a anula.

### Cum să calibrezi FIB

1. Reconstituiți calibratorul și așteaptă 15-30min înainte de a continua cu pasul următor
2. Calibratoare.  
Valoarea țintă a calibratoarelor este starea la certificat. Se presupune ca exemplu 300mg / dL
  - a. 600 mg / dL: Pipetați 50 pi calibrator + 200 uL tampon IBS în tubul gol
  - b. 300 mg / dL: Pipetați 50 pi calibrator + 4500 pL tampon IBS în tubul gol
  - c. 150 mg / dL: Pipetați 50 pi calibrator + 950 uL tampon IBS în tubul gol
  - d. 75 mg / dL: Pipetați 50 pi calibrator + 1950 uL tampon IBS în tubul gol
3. Rulați totți 4 calibratori
  - a. Adăugați 50 uL de calibrator în cuvă
  - b. Adăugați 25 uL de reactiv FIB pentru a începe măsurarea. Scrieți timpii de coagulare pe hârtie sau imprimați
4. Introduceți setările FIB și introduceți
  - a. LOT corect, Exp
  - b. setați unitățile la “mg/dL”
- c. Introduceți calibrarea mg/dl

## 5. FUNCȚIILE DE DESERVIRE

### 5.1 VERIFICAREA OPTICĂ



IMAGINEA 18: VERIFICAREA OPTICĂ

### 5.2 RAPORTUL DE SISTEM

SYSTEM REPORT					
22.08.2017					
System:	Coatron X				
Version:	V1.01.42				
SIN :	01040 01234				
PIN:	12345 67890				
TEMP:	37.0°C 50981 (target=50992)				
Optic:					
Lo	Hi	mA	Qc		
1:2698	28822	5	6	OK	
2:2698	29822	6	3	OK	
3:2698	30822	7	1	OK	
4:2698	29822	6	0	OK	
PT=	26				
aPTT=	8				
FIB=	17				
DD=	0				
AT=	0				
TOTAL	101				

*Data raportului*  
*denumirea sistemului*  
*versiunea programului*  
*numărul de identificare al sistemului*  
*numărul de identificare al produsului*  
*temperatura opticii și valoarea digitală al sensorului*  
*temperaturii*  
*Valorile optice*  
*Lo= LED stins*  
*Hi= LED pornit*  
*mA= energia LED*  
*Qc= zgomotul opticii*  
*OK= nu există eroare*  
*!!= condiție de eroare*

*Numărarea testelor efectuate*

### 5.3 AJUSTAREA TEMPERATURII

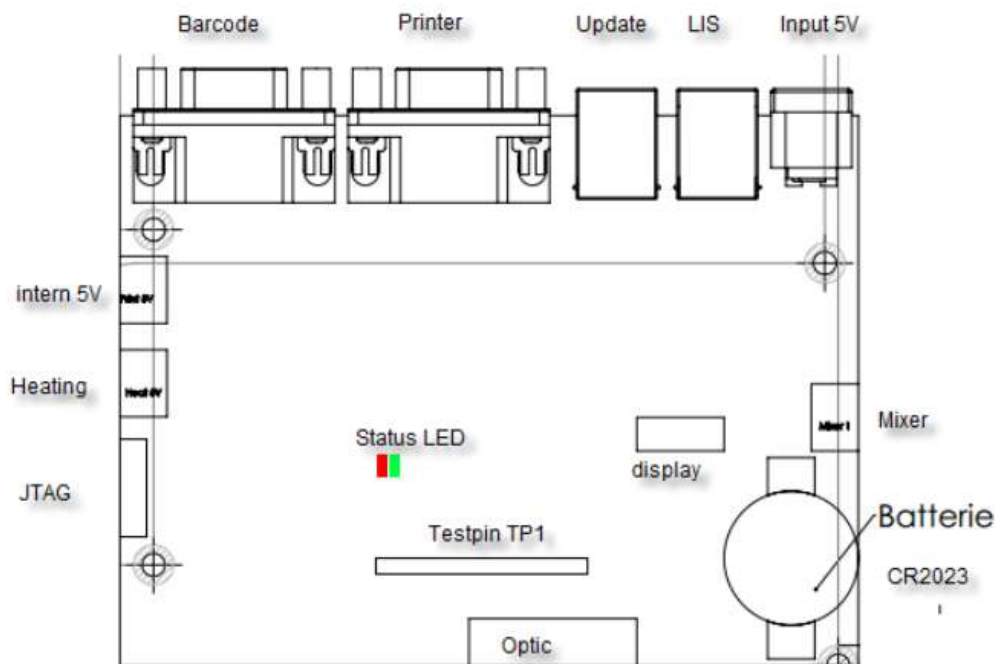
1. Porniți dispozitivul și așteptați aprox. 15min până când sistemul afișează 37 ° C pe ecran.
2. Umpleți un tub / flacon de reactiv cu 2 ml de apă și așezați-l într-o poziție de reactiv. Plasați un termometru digital în tubul de reactiv și lăsați să se încălzească timp de aproximativ 10 minute.
3. Apăsați meniul

Schimbați temperatura sistemului curent la valoarea termometrului. Așteptați 10 min și repetați procedura.

Problemele tipice:

Defecțiunea/Eroarea	Cauza posibilă	Măsurări
Încălzirea sistemului nu a ajuns la 37°C	Calibrarea senzorului este dincolo de spectrul stabilit	Resetați la implicit din fabrică ca descris în capitolul „Funcție ascunsă”
Sistemul arată 0.00°C	Senzorul a ieșit din diapazon	Temperatura mediului trebuie să fie de 0 – 45°C.
Placa cu senzor sau cu LED optic este defectă	Înlocuți placa LED	

### 5.4 PREZENTAREA GENERALĂ AL PLĂCII PRICIPALE



Statutul după becul LED:

verde permanent	= totul este bine
roșu, permanent	= EEPROM eroare
verde, intermitent	= eroarea bateriei
roșu, intermitent	= senzor de temperatură/optica nu este conectată

## 6. FUNCȚIILE ASCUNSE

### 6.1 RESETAREA LA STAREA DIN FABRICĂ



IMAGINEA 19: ECRANUL DE START



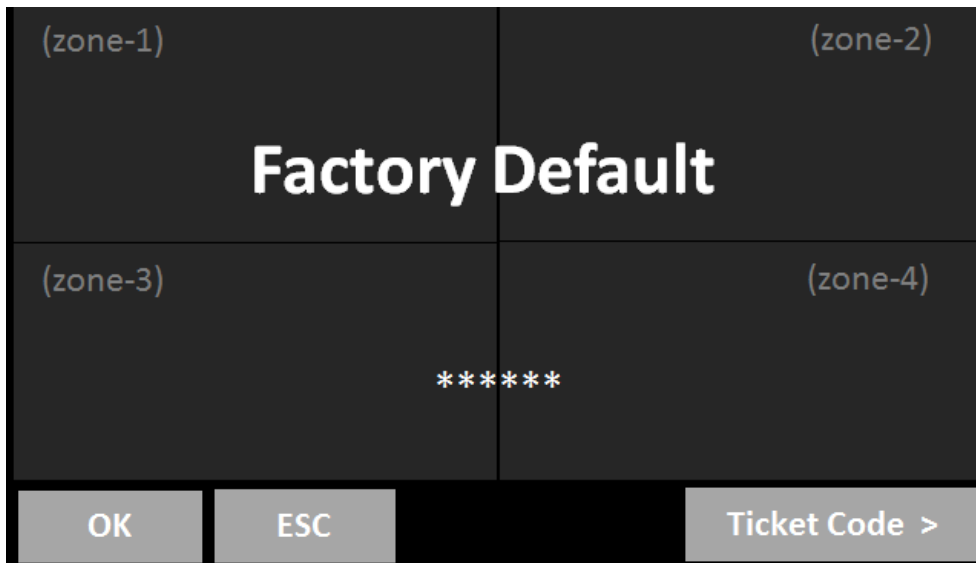
IMAGINEA 20: SETĂRILE IMPLICITE

Apăsați  
spinerul timp  
de 3 sec

#### Cum se resetează calibrarea PT la setările implicite de fabrică:

1. Porniți dispozitivul și treceți la ecranul de pornire
2. Atingeți orice buton de testare
3. Schimbați testul în „PT” și atingeți „Configurare” sau scanați codul de bare al flaconului PT
4. Introduceți LOT, data expirării și selectați Unități în „% + INR”

## 6.2 LOGAREA ÎN CALITATE DE ADMINISTRATOR



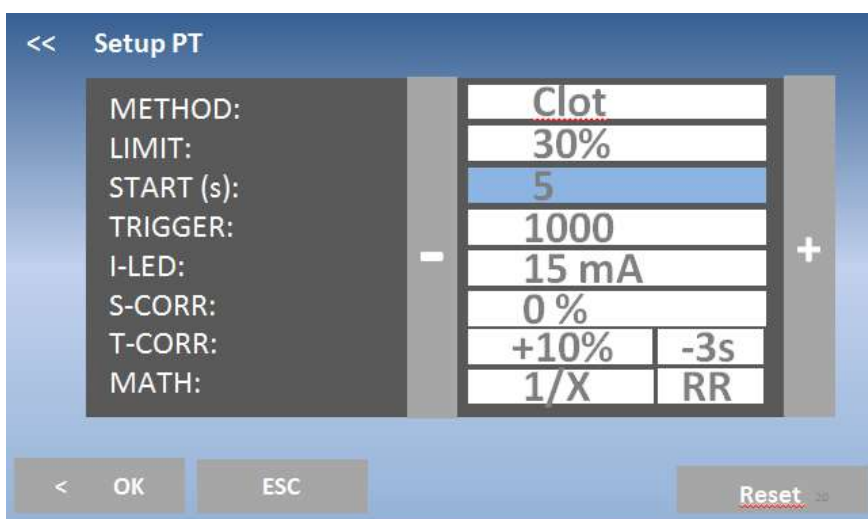
IMAGINEA21 : LOGAREA ÎN CALITATE DE ADMINISTRATOR

1. Ecran de întâmpinare: Apăsați lung pe pictograma filetelui
2. Alternativa tactilă: zona 1, 2, 1, 2, 1, 2

Ca admin funcțiile următoare sunt activate:

- Schimbă protocolul de testare (vezi următorul capitol)

## 6.3 MODIFICAREA PROTOCOLULUI DE TESTARE



IMAGINEA 22: PROTOCOLUL DE TESTARE

## 7. CURĂȚIREA ȘI MENTENANȚA

### 7.1 INFORMAȚIA GENERALĂ CU PRIVIRE LA CURĂȚIRE

- Curățați cu o cârpă sau un stick de bumbac fără scame.
- Nu purificați niciodată lichidul în zona optică sau de lucru.
- Păstrați dispozitivul fără praf și umezeală.
- Dacă dispozitivul este murdar cu lichide, îndepărtați murdăria cu o cârpă absorbantă.
- Dacă un lichid a fost vărsat sau pipetat accidental într-un canal de măsurare, deconectați imediat de la sursa de alimentare și curățați canalul de măsurare cu pipeta și o cârpă fără scame. Verificați funcția opticii din meniul DESERVIRE.



Aveți în vedere toate suprafețele și materialele, care ar putea fi în contact cu plasma sau cu alt lichid biologic, deoarece ar putea fi contaminate cu materiale infecțioase.



Evitați orice contact direct cu decontaminanți sau dezinfectanți.

### 7.1 CURĂȚIREA

- Folosiți detergent, apă și înălbitor diluat 10% sau decontaminant comercial.
- Curățați și ștergeți toate deversările din jurul zonei de lucru sau ale sistemului de pompare cu ac cu detergent și apă.

### 7.2 DECONTAMINAREA

- Utilizați înălbitor diluat cu 30% și dezinfectant comercial (de exemplu, Bacillo®AF)
- Decontaminați zona de lucru, zona acului, rafturile pentru pacienți, tastatura, ecranul LCD, carcasa față, imprimanta și sertarele pentru deșeuri

### 7.3 MENTENANȚA REGULATĂ

- Curățați dispozitivul după fiecare utilizare
- Decontaminați dispozitivul în fiecare săptămână sau înainte de expediere pentru reparare / aruncare
- După 5 ani înlocuiți bateria plăcii de bază (CR2032)

## 8. ELIMINAREA ERORILOR

### 8.1 ERORILE DE MĂSURARE

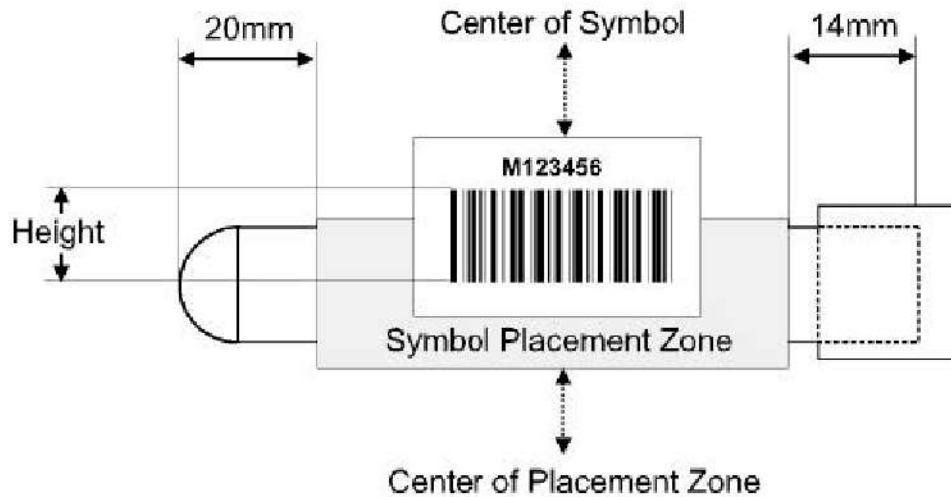
Eroarea	Cauza posibilă	Măsurarea
Rezultatele marcate "*"	Rezultate ce trec peste limita de calibrare	
Marcă "T"	Temperatura dincolo de 36 – 38°C	
Marcă "E"	Reagentul este expirat	
Marcă "S"	Semnalul optic este foarte scăzut, din cauza turbidității extreme.	Verificați optica Evitați interferențele optice probe lipemice.
Marcă "f" sau "F" (doar testul PT)	Fibrinogen ridicat sau scăzut	Executați testul FIB pentru confirmare
Marcă "X"	Valorile duble deviază cu mai mult de 15%	
Marcă "+++"	Nu a fost observată nici o coagulare cu timpul de măsurare	

- Problemă cu pornirea automată ! (Pipetați spre centru, reduceți sau măriți declanșarea autostartului ).



## 9. ANEXĂ

### 9.1 GHIDUL CODULUI DE BARE



#### Specificația etichetei:

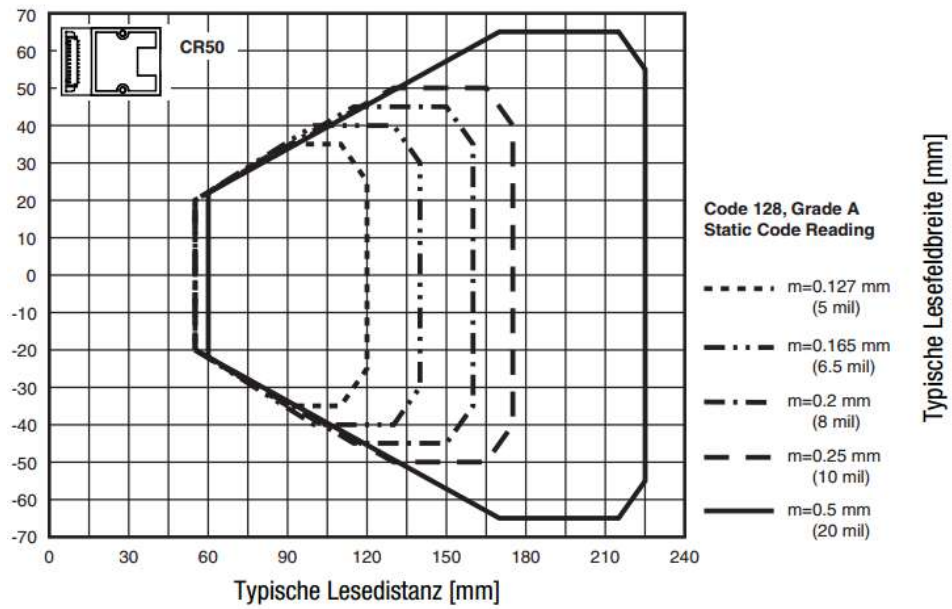
- Lungimea: 50 – 70 mm
- Lățimea: 20 - 30 mm
- Lungimea codului de bare: 40 – 60 mm
- Lățimea codului de bare: 10 - 20 mm
- Zona goală: > 5mm
- Rezoluția/modul: 5 -20mils (0.2 – 0.5mm)
- Diapazon: minim 1:2,5 to 1:3 (coduri bidimensionale)
- Calitate: Nivelul A sau B în conformitate cu ANSI X3.192 -1990

#### Coduri acceptate:

- Code 128 3 – 16 caractere
- EAN 128 3 – 13 caractere
- Code 39 4 – 13 caractere
- Code 93 4 – 13 caractere
- 2/5 intercalat 8 - 12 caractere

Câmpul de detecție:

Cea mai bună distanță de etichetă și scanner este de 80 - 120mm



## 9.2 SPECIFICAȚIILE TEHNICE

### Analizator

Ecran	Ecran tactil TFT 4.3" 480x272
Sistemul de măsurare	1-4 canale de măsurare independente lungimea de undă a LED-ului 405 nm
Cuvete	Cuva cu un singur canal pentru detectarea optică
Poziții (pre-încălzite)	5 poziții ale reagentului la 36.5 – 37.5 °C 20 poziții ale cuvetelor la 36.5 – 37.5°C
Volumele de reacție	Volumul minim total 75 µl
Aprobări	Analizatorul corespunde cu 98/79/EC (IVDD)

### Scannerul codului de bare

Scanner CCD	Energie maximă = 120mA Perioada de pulsație = 330/s
Clasa B EN 55022:2010 , EN 62471:2008	Lungimea de undă = 617 nm Cea mai bună distanță = 80 -120mm
Codec-ul acceptat	EAN (8,13, 128), Codul (39,93,128), Codabar, Intercalat 2 din 5

### Sursa de energie

Voltajul nominal de intrare	100 – 240VAC , 47-63Hz
Curentul maxim de intrare	0.7A rms
Energia de ieșire	5Vdc , 3.3A
Bateria (placa de bază)	Lithium CR2032 3V
Consumul de energie	max. = 14W așteptare < 0.5W

### Dimensiuni

Dimensiuni (W x D x H)	225 x 150 x 90 mm
Greutatea	1.04 kg (fără sursa de energie)

### Condițiile de mediu

Temperatura de operare	15 - 30 °C
Umiditatea	< 70% umiditate relativă
Ridicarea deasupra nivelului mării	< 3.000m
Liber de praf	Gradul 2
Rezistența la impact	În conformitate cu IEC/EN 61010-1, 8.2.2
Nu sunt permise	Vibrațiile, expunerea la razele directe ale soarelui sau condițiile de aer.
Condițiile de păstrare	0°C - +40°C maxim 12 luni în ambalajul original
Condițiile de transport	0°C - +40°C

### Zgomot

Zgomotul de operare	Maxim 50 dBA
---------------------	--------------

**Interfețe**

RS232 (Codul de bare)	Sub-D9, feminin; 9600 Baud/8/1/N; Pin-9 alimentat cu 5V DC. Pentru scanere externe de coduri de bare portabile, imprimante în serie
RS232 (Printer)	Sub-D9 feminin; 9600 Baud/8/1/N; pentru imprimante în serie
USB (Service, Firmware Update)	Tip-B, feminin, 115200 Baud/8/1/N
USB (LIS)	Tip-B, feminin, 115200 Baud/8/1/N; Pentru comunicarea LIS

**Date tipice de performanță**

Testul	CV.	Spectrul
PT	<3%	0-30 INR
APTT	<3%	15 – 420 s
FIB	<7%	50-999 mg/dL

**Utilizare**

Acest produs este utilizat pentru determinarea timpului de protrombină (PT) în plasmă, conform Quick<sup>1,2</sup>. Testul este sensibil la activitatea factorilor de coagulare implicați pe calea “extrinsecă”, și anume: II, V, VII, X și fibrinogen și prin urmare este utilizat pentru terapie anticoagulantă orală cu inhibitori ai Vitaminei-K precum Warfarin sau Marcumar. De asemenea, se utilizează și pentru determinarea cantitativă a factorilor de coagulare implicați pe calea “extrinsecă”. PT-ul măsoară timpul de coagulare extrinsecă (activarea factorului VII) a plazmei de testare după adăugarea reagentului PT.

**Continut și Determinări**

Product	TEClot PT-S	TEClot PT-S	TEClot PT-S
Cat.No.	A0230-010	A0230-040	A0230-100
PT-S Reagent*	5x2 mL	10x4 mL	10x10 mL

**Determinări**

Coatron M**	200 Det.	800 Det.	2000 Det.
Coatron A4	100 Det.	400 Det.	1000 Det.
Coatron A6	200 Det.	800 Det.	2000 Det.

\*conține un extract din creier de iepure cu Buffer, stabilizatori și Clorură de Calciu.

\*\*Metoda micro (75μl în total)

**Preparare**

Reconstituiți cu apă de înaltă puritate cu volumul indicat pe eticheta flaconului

A0230-010	A0230-040	A0230-100
2 mL	4 mL	10 mL

Lăsați la temperatura camerei pentru cel puțin 15 minute cu învârtiri/rotiri ocazionale. Plasați reagentul în aparat și lăsați să se incubeze pentru încă 15 minute. Reactivul sedimentează și trebuie învârtit/rotit înainte de fiecare testare. La aparatele Coatron puteți utiliza o bară de amestecare pentru asta.

**Păstrare și Stabilitate**

Reagenții nedesfăcuți și păstrați între 2<sup>o</sup>-8<sup>o</sup>C, sunt stabili pînă la data expirării indicate pe ambalaj. Reagenții deschiși deja, sunt stabili :

	<b>2<sup>o</sup>-8<sup>o</sup>C</b>	<b>20-25<sup>o</sup>C</b>	<b>37<sup>o</sup>C</b>
<b>PT reagent</b>	5 zile	36 ore	8 ore

### Măsuri de precauție

Evitați contactul cu pielea și ochii. Purtați haine de protecție adecvate. Eliminați componentele în conformitate cu reglementările locale pentru materialele infecțioase. Toate componentele sunt verificate pentru HIV, VHB, VHC. Cu toate acestea, produsele din sângele uman ar trebui considerate potențial infecțioase.

### Colectarea și depozitarea probei <sup>4</sup>

1. Obțineți sângele venos prin puncție curată a venei.
2. Amestecați imediat 9 părți de sânge cu 1 parte de 3,2% de Citrat de Na (0.105M) și amestecați bine.
3. Centrifugați specimenul la 1500g pentru 10 min (trombocite < 10000/ $\mu$ L).
4. Separați plazma după centrifugare și depozitați în tuburi de sticlă siliconizată.
5. Utilizați plazma în timp de 4 ore sau înghețați și dezghețați doar înainte de utilizare.

Stabilitatea plazmei: 4 ore la 18-26°C, 8 ore la 2-8°, 30 zile la -20°C, 6 luni la -70°C

### Procedura

#### A. Metoda automată: Coatron A

Prothrombin Time		A4		A6			A4	A6		A4	A6
PAT	Patient	50 $\mu$ l	CP1	25 $\mu$ l	CP1	Incubation	0s		SENS	2	
BUF	IBS Buffer	0 $\mu$ l	P39	0 $\mu$ l	P79	Maxtime	120s		POINTS	4	
CLR	-	0 $\mu$ l	-	0 $\mu$ l	-	Unit	251		MIX	No	
DP	-	0 $\mu$ l	P00	0 $\mu$ l	P00	Method	Coag		Clean	0	0
R0	-	0 $\mu$ l	P00	0 $\mu$ l	P00	Math	log XY		Multi	1	3
R1	-	0 $\mu$ l	P00	0 $\mu$ l	P00	CT-Mech	No		S-Corr	0%	
R2	PT Reagent	100 $\mu$ l	P25	50 $\mu$ l	P46	Deadtime	7s		T-Corr	30% - 4s	

#### B. Metoda manuală:

1. Incubați reagentul PT la 37°C pentru cel puțin 10 minute
2. Pipetați **25  $\mu$ l** din specimen în cuveta pentru testare. Incubați la 37°C pentru 1-2 min
3. Adăugați **50  $\mu$ l** de reagent PT (37°C) și începeți simultan testul.
4. Înregistrați/măsurați în secunde timpul de coagulare.

### Rezultate așteptate

Secunde tipice : 11-18 sec

Intervalul normal: 70 - 130% 0.85 – 1.15 INR

Oricum, rezultatele sunt influențate de aparate, tehnică, calibrare etc. Se recomandă ca fiecare laborator să-și stabilească propriul interval, specific aparatelor utilizate.

## Standardizare și Calibrare

Rezultatul PT este exprimat în secunde sau activitate (% Quick) sau INR (International Normalised Ratio).

Rezultatele INR:

-au fost calculate din timpul normal și valoarea ISI (international sensitivity index/ indicele internațional de sensibilitate). Primul este obținut prin testarea plazmei proaspete a unui grup de indivizi sănătoși. Valoarea ISI este stabilită în certificatul de analiză specific fiecărui lot.

$$INR = \left( \frac{Patient\ PT}{Normal\ PT} \right)^{ISI}$$

Rezultatele % activității (Quick):

-au fost calculate dintr-o curbă de calibrare, care a fost pregătită după plasma de referință (e.g. **TECAL N**) și diluări în soluții saline ca 0.9% de NaCl2 sau TECLOT IBS buffer. Sunt recomandate cel puțin 3 sau mai multe puncte de calibrare . Curba de calibrare trebuie confirmată cu plasma de control cu interval normal și patologic.

<b>% din normal diluat în soluție salină</b>	<b>100%*</b>	<b>50%</b>	<b>25%</b>	<b>12,5%**</b>
	Fără diluție	1+1	1+3	1+7

\*media de la cel puțin 21 de indivizi sănătoși este definită ca 100%<sup>5</sup>

\*\*diluția de 12.5% poate cauza rezultate “+++” în unele cazuri, pentru că nivelul de diluție al fibrinogenului este prea mare pentru detecție optică.

## Controlul Calității

TEControl sau altă plasmă de control comercială trebuie utilizată pentru controlul calității performanței la o frecvență în conformitate cu practicile bune de laborator (GLP). TEControl poate fi înghețat o singură dată după reconstituire. 120-150 μl păstrat închis în tuburi de polipropilen la -20°C , este stabil timp de 30 zile.

## Restricții/ Limitări

O mare grijă și atenție trebuie de avut la factorii care pot părea ne semnificativi.

### A. Colectarea probei. Evitați:

1. Folosiți doar tuburi de plastic sau sticlă siliconizată.
2. Amestecarea întârziată a sîngelui cu anticoagulant.
3. Contaminarea cu tromboplastină tisulară.
4. Raportul greșit de sînge cu anticoagulant.
5. Probele hemolizate, icterice sau lipemice pot interfera sistemele optice.

### B. Tehnici de Laborator:

1. Efectuați testul la 37°C.
2. Utilizați doar apă cu puritate înaltă.
3. pH-ul optim este 7.0-7.5.
4. Valoarea ISI nu e constantă în primile 30 min după reconstituire.
5. Reagentul face sedimente , de aceea trebuie de agitat înainte de fiecare testare.

## Caracteristici de performanță

Performanțe tipice pe aparatul Coatron M4:

Precision:	CV% (în timpul testării)	CV% (între testări)
Normal control	< 3,0	< 5,0
Abnormal control	< 3,0	< 5,0













## Garantie

Acest produs este garantat doar dacă se utilizează în conformitate cu informațiile de pe eticheta proprie și din instrucțiune. TECO nu acordă garanție dacă produsul este utilizat în alt scop și în niciun caz TECO nu va fi răspunzător pentru daunele care rezultă din garanția expresă menționată mai sus.

## **Referințe:**

1. Quick, A.J., The Hemorrhagic Diseases and the Physiology of Hemostasis. Charles C. Thomas: Springfield, IL. 1942.
2. Quick, A.J., Hemorrhagic Diseases. Lea and Febiger: Philadelphia. 1957.
3. Miale, J.B., Laboratory Medicine-Hematology, 4th Edition. C.V. Mosby: St. Louis. 1972.
4. National Committee for Clinical Laboratory Standards: Guidelines for the Standardized Collection, Transport and Preparation of Blood Specimens for Coagulation Testing and Performance of Coagulation Assays.
5. Besselaar A M H P van den, Lewis SM, Mannucci P n Poller L. 1993. Status of present and candidate International Reference Preparations (IRP) of thromboplastin for prothrombin time. Thromb Hemostas 69; 85
6. Besselaar A M H P van den. 1991. The significance of the International Normalized Ratio (INR) for oral anticoagulant therapy. H17CC 3; 146153.

### Symbol keys

 Expiry date	 In Vitro Diagnostica	 Biological hazard	 Catalogue Number	 Reconstitute with dest. water	 Consult accompanying documents
 Store at 2-8°C	 EU conformity	 Manufacturer	 Lot. Number	 Ready to use	 Authorized Representative





IVD

REF

A0300-025, A0300-050, A0320-050, A0320-100

**Utilizare**

Acest produs are scopul de a determina Timpului de Tromboplastină Parțial Activat (APTT) folosind silicat în calitate de activator. Determinarea de APTT se folosește pentru o evaluare “globală” a “căii intrinsece” și pentru detectarea deficiențelor de coagulare intrinsecă a factorilor VIII, IX, XI, XII și Fletcher Factor, precum și pentru monitorizarea terapiei cu anticoagulant heparină sau alte metode de coagulare unde este necesar reagent APTT<sup>1,2</sup>. Reagentul APTT din kit conține fosfolipide și silicat pentru a asigura o consistență și stabilitate înaltă a produsului<sup>3</sup>. Reagentul APTT este insensibil la anticoagulant Lupus. Reagenții insensibili la anticoagulant Lupus dau un randament mai de încredere a rezultatelor testării factorilor, decât reagenții sensibili la inhibitori Lupus<sup>4</sup>. Timpii prelungiți de coagulare pot fi observați în următoarele situații: deficiența a factorilor de coagulare intrinsecă, prezența heparinei, în boli de ficat, deficiență de vitamina K sau alți anticoagulanți care afectează calea intrinsecă de coagulare.

**Continut și Determinări**

Produs	TECLOT APTT-S Kit-25	TECLOT APTT-S Kit-50	TECLOT APTT-S	TECLOT APTT-S
Cat.No.	A0300-025	A0300-050	A0320-050	A0320-100
APTT-S Reagent*	5x5 mL	5x10 mL	10x5 mL	10x10 mL
CaCl <sub>2</sub> 0.025M**	5x5 mL	5x10 mL	-	-

**Determinări**

Coatron M***	1000 Det.	2000 Det.	2000 Det.	4000 Det.
Coatron A4	500 Det.	1000 Det.	1000 Det.	2000 Det.
Coatron A6	1000 Det.	2000 Det.	2000 Det.	4000 Det.

\* Reagentul APTT-S conține silicat coloidal cu fosfolipide, buffer și conservanți.

\*\* CaCl<sub>2</sub> conține azida de sodiu.

\*\*\*Metoda Micro (75μL în total)

**Preparare**

Componentele kitului sunt gata de utilizare. Permite la CaCl<sub>2</sub> să se preîncălzească timp de 15 minute la temperatura de 37 °C și amestecă atent reagentul înainte de utilizare.

**Păstrare și Stabilitate**

Reagenții care nu au fost deschiși sunt stabili pînă la data expirării indicate pe ambalaj, păstrați la temperatura de 2°-8°C. Reagenții deschiși deja se păstrează:

	2-8 °C	20-25 °C	37 °C
APTT-S Reagent	30 zile	8 zile	8 ore

### Măsuri de precauție

Evitați contactul cu pielea și ochii. Purtați haine de protecție adecvate. Eliminați componentele în conformitate cu reglementările locale pentru materialele infecțioase. Toate componentele sunt verificate pentru HIV, HBV, HCV. Cu toate acestea, produsele din sângele uman ar trebui considerate potențial infecțioase.

### Colectarea și păstrarea probelor<sup>5</sup>

1. Obțineți sânge venos printr-o puncție curată a venei.
2. Amestecați imediat 9 părți de sânge cu 1 parte de 3.2% sodium citrate (0.105M) și amestecați bine.
3. Centrifugați proba la 1500g timp de 10 minute (trombocite < 10000/ $\mu$ L).
4. Separați plasma după centrifugare și păstrați în plastic sau tuburi de sticlă siliconată.
5. Folosiți plazma în timp de 4 ore sau depozitați/păstrați înghețat și dezghețați numai înainte de folosire.

Stabilitatea plazmei: 4 ore la 18-26°C, 8 ore la 2-8°, 14 zile la -20°C, 6 luni la -70°C

### Procedura

#### **A. Automated Method: Coatron A**

APTT-S		A4		A6	
PAT	Patient	50 $\mu$ l	CP1	25 $\mu$ l	CP1
BUF	-	0 $\mu$ l	P00	0 $\mu$ l	P00
CLR	-	0 $\mu$ l	-	0 $\mu$ l	-
DP	-	0 $\mu$ l	P00	0 $\mu$ l	P00
R0	-	0 $\mu$ l	P00	0 $\mu$ l	P00
R1	APTT-S	50 $\mu$ l	P31	25 $\mu$ l	P60
R2	CaCl 25mM	50 $\mu$ l	P26	25 $\mu$ l	P47

	A4	A6
Incubation	180s	
Maxtime	180s	
Unit	17	
Method	Coag	
Math	-	
CT-Mech	No	
Deadtime	17s	

	A4	A6
SENS	1	
POINTS	0	
MIX	No	
Clean	0	0
Multi	1	3
S-Corr	0%	
T-Corr	15% - 6s	

#### **B. Metoda manuală: Coatron M**

1. Preîncălziți CaCl<sub>2</sub> (0.025M) la 37°C pentru cel puțin 10 minute.
2. Pipetați 25  $\mu$ l de probă/specimen într-o cuvetă pentru testare. Preîncălziți la 37°C pentru 1-2 minute.
3. Adăugați 25  $\mu$ l de reagent APTT-S și incubați pentru exact 3 minute la temperatura de 37°C.
4. Adăugați 25  $\mu$ l de CaCl<sub>2</sub> (0.025M) și simultan începeți testul.
5. Măsurați timpul de coagulare în secunde.

### Rezultate așteptate

Rezultatele tipice normale sunt de 23-47 sec. Oricum, rezultatele sunt influențate de metoda de detecție a coagulării și poate varia de la laborator la laborator. Este recomandat ca fiecare laborator să-și stabilească propriul interval normal specific pe aparatul utilizat.

### **Controlul Calității**

TEControl sau altă plasmă de control comercială trebuie utilizată pentru controlul calității performanței la o frecvență în conformitate cu practicile bune de laborator (GLP). TEControl poate fi înghețat o singură dată după reconstituire. 120-150 μl păstrat închis în tuburi de polipropilen la -20°C , este stabil timp de 30 zile.

### **Limitări / Restricții**

A. Colectarea probei.EVITAȚI:

1. Folosiți doar tuburi de plastic sau sticlă siliconizată.
2. Întârzierea amestecării sîngelui cu anticoagulant.
3. Contaminarea cu tromboplastină tisulară.
4. Raportul greșit dintre sînge și anticoagulant.
5. Probele hemolizate, icterice sau lipemice pot interfera sistemele optice.

B . Tehnici de Laborator:

1. Efectuați testul la 37°C.
2. Utilizați doar apă cu puritate înaltă.
3. pH-ul optim este 7.0-7.5.

### **Caracteristici de performanță:**

Performanțe tipice pe aparatul Coatron M4:

Precizia	CV%(în timpul testării)	CV%(între testări)
QC control	< 3,0	< 5,0

Sensibilitatea Factorilor și Heparinei:

Factor (%)	APTT timp de coagulare ( s)		
	F VIII	F IX	F XI
< 1%	100	80	103
10%	53	52	58
40%	40	39	41
100%	35	35	35

Heparin (U/mL)	0 U/mL	0,2 U/mL	0,4 U/mL
APTT timp de coagulare ( s)	35	70	180

### **Garantie**

Acest produs este garantat doar dacă se utilizează în conformitate cu informațiile de pe eticheta proprie și din instrucțiune. TECO nu acordă garanție dacă produsul este utilizat în alt scop și în niciun caz TECO nu va fi răspunzător pentru daunele care rezultă din garanția expresă menționată mai sus.

## Referințe

1. Proctor RR, Rapaport SI. The partial thromboplastin time with kaolin. A simple screening test for first stage plasma clotting factor deficiencies. Am J Clin Pathol 36, 212-219 (1961).
2. Triplett DA, Harms CS, Koepke JA. The effect of heparin on the activated partial thromboplastin time. Am J Clin Pathol 70, 556-569 (1978).
3. Stevenson KJ, Easton AC, Thomson JM, Poller L. The reliability of activated partial thromboplastin time methods and the relationship to lipid composition and ultrastructure. Thromb Haemost 55, 250-258 (1986).
4. Denis-Magdelaine A, Flahault A, Verdy E. Sensitivity of sixteen APTT reagents for the presence of lupus anticoagulants. Haemostasis 25, 98-105 (1995).
5. NCCLS: Guidelines for the Standardized Collection, Transport and Preparation of Blood Specimens for Coagulation Testing and Performance of Coagulation Assays

Symbols key:

 Expiry date	 In Vitro Diagnostica	 Biological hazard	 Catalogue Number	 Consult accompanying documents
 Store at 2-8°C	 EU conformity	 Manufacturer	 Lot, Number	 Authorized Representative



IVD

REF

A0501-010, A0501-025, A0511-020, A0511-050

**Utilizare**

TEClot FIB este utilizat pentru determinarea cantitativă a fibrinogenului în plasma umană, conform tehnicii dezvoltată de Clauss<sup>1</sup>. Nivelul de fibrinogen poate crește ca rezultat al inflamației, sarcinii sau utilizarea contraceptivelor orale<sup>2</sup>. Nivelul scăzut de fibrinogen poate fi identificat în situații concrete precum boli de ficat sau DIC (Coagulare intravasculară diseminată). Deficiențele congenitale includ afibrinogenaemia (nici un fibrinogen detectabil), hypofibrinogenaemia (<1 mg/ml) și dysfibrinogenaemia (molecula anormală de fibrinogen).

**Continut și preparare**

Product	TEClot FIB Kit-10	TEClot FIB Kit-25	TEClot FIB	TEClot FIB
Cat.No.	A0501-010	A0501-025	A0511-020	A0511-050
Reactivul de trombină	5x2 mL	5x5 mL	10x2 mL	10x5 mL
IBS Buffer	1x125 mL	1x125 mL	-	-
TECal Normal	1x1 mL	1x1 mL	-	-
TEControl A	1x1 mL	1x1 mL	-	-

**Determinări**

Coatron M*	400 Det.	1000 Det.	800 Det.	2000 Det.
Coatron A4	200 Det.	500 Det.	400 Det.	1000 Det.
Coatron A6	200 Det.	500 Det.	400 Det.	1000

\*Metoda micro (75μL în total)

1. Reactivul de trombină:  
Conține trombină de bovină (~80NIH) cu stabilizatori.  
REF: A0501-010/A0511-020: reconstituiți cu 2 ml de apă purificată.  
REF: A0501-025/A0511-050: reconstituiți cu 5 ml de apă purificată.
2. IBS Buffer: Gata de utilizare. Conține soluție salină tamponată Imidazol.
3. TECal Normal: reconstituiți cu 1 ml de apă purificată. Conține plasma umană citrată.
4. TEControl A: reconstituiți cu 1 ml de apă purificată. Conține plasma umană citrată.



Rotiți ușor după reconstituire și lăsați timp de 15 minute la temperatura camerei. Amestecați bine înainte de utilizare. Nu agitați/ scuturați.

**Păstrare și stabilitate**

Reagenții care nu au fost deschiși sunt stabili pînă la data expirării indicate pe ambalaj, păstrați la temperatura de 2°-8°C. Reagenții deschiși deja se păstrează:

Reactivul de trombină*	2-8 °C	15-25 °C	37 °C
	12 zile	5 zile	24 ore
TEControl sau Plasma	2-8 °C	15-25 °C	-20 °C
	8 ore	4 ore	30 zile

\*Reactivul trebuie de protejat razele ultraviolete și evaporare.

### **Măsuri de precauție**

Evitați contactul cu pielea și ochii. Purtați haine de protecție adecvate. Eliminați componentele în conformitate cu reglementările locale pentru materialele infecțioase. Toate componentele sunt verificate pentru HIV, HBV, HCV. Cu toate acestea, produsele din sângele uman ar trebui considerate potențial infecțioase.

### **Colectarea și păstrarea probelor**<sup>3</sup>

1. Obțineți sânge venos printr-o puncție curată a venei.
2. Amestecați imediat 9 părți de sânge cu 1 parte de 3.2% sodium citrate (0.105M) și amestecați bine.
3. Centrifugați proba la 1500g timp de 10 minute (trombocite < 10000/μL).
4. Separați plasma după centrifugare și păstrați în plastic sau tuburi de sticlă siliconată.
5. Folosiți plasma în timp de 4 ore sau depozitați/păstrați înghețat și dezghețați numai înainte de folosire.

### **Procedura**

#### A. Metoda automată Coatron A

Fibrinogen		A4		A6			A4	A6		A4	A6
PAT	Patient	10μl	CP1	10μl	CP1	Incubation	0s		SENS	0	
BUF	IBS Buffer	90μl	P39	90μl	P79	Maxtime	120s		POINTS	4	
CLR	-	0μl	-	0μl	-	Unit	769		MIX	No	
DP	-	0μl	P00	0μl	P00	Method	Coag		Clean	1	3
R0	-	0μl	P00	0μl	P00	Math	log XY		Multi	1	1
R1	-	0μl	P00	0μl	P00	CT-Mech	Yes		S-Corr	0%	
R2	Fibrinogen	50μl	P29	50μl	P49	Deadtime	3s		T-Corr	0%	

#### B. Metoda manuală Coatron M

1. Prepararea diluțiilor pentru Standard, Control și Pacient.

Diluția Standard	Plazma	IBS Buffer
1:5	200μL Standard	800μL
1:10	500μL 1:5 STD	500μL
1:20	500μL 1:10 STD	500μL
1:40	500μL 1:20 STD	500μL
Pacient sau Control	100μL Plasma	900μL

2. Pipetați 50 μl de standard diluat sau plasma pacientului (1:10) într-o cuvetă pentru testare. Preîncălziți la 37°C timp de 1-2 minute.
3. Adăugați 25 μl de reactiv de trombină și simultan începeți testul.  
Pentru alte aparate, consultați manualul cu instrucțiuni specifice mai detaliate.

### **Calibrare**

Ca referință trebuie de utilizat TECal Normal sau altă Plasma standard comercială preparată în care fibrinogenul a fost determinat. (200-300mg/dL). Reprezintă grafic timpul de coagulare obținut cu fiecare din diluțiile standard ale fibrinogenului pe axa-y , opus concentrației de fibrinogen (mg/dL) pe axa-x utilizând hîrtia grafică log-log. Linia cea mai potrivită trebuie de determinat prin analiza regresiei liniare. Fibrinogenul din probele de plasmă poate fi determinat prin interpolare din curba de calibrare.

### **Rezultate aseptate**

Rezultatele normale tipice sunt 180-450 mg/dL<sup>4,5</sup>. Oricum , rezultatele sunt influențate de metoda de detecție a coagulării și poate varia de la laborator la laborator. Este recomandat ca fiecare laborator să-și stabilească propriul interval normal specific aparatului utilizat.

### **Controlul Calității**

Pentru un control de încredere al calității performanței , trebuie utilizată TEControl sau altă plasmă de control comercială la o frecvență în conformitate cu practicile bune de laborator (GLP). TEControl poate fi înghețat o singură dată după reconstituire. 120-150 μl păstrat închis în tuburi de polipropilen la -20°C , este stabil timp de 30 zile.

### **Limitări / Restricții**

A. Colectarea probei.EVITAȚI:

1. Folosiți doar tuburi de plastic sau sticlă siliconizată.
2. Întîrzierea amestecării sîngelui cu anticoagulant.
3. Contaminarea cu tromboplastină tisulară.
4. Raportul greșit dintre sînge și anticoagulant.
5. Probele hemolizate, icterice sau lipemice pot interfera sistemele optice.

B . Tehnici de Laborator:

1. Efectuați testul la 37°C.
2. Utilizați doar apă cu puritate înaltă.
3. pH-ul optim este 7.0-7.5.

### **Caracteristici de performanță:**

Precizia	CV%(în timpul testării)	CV%(între testări)
Normal control	< 5.0	< 5.0
Abnormal control	< 5.0	< 10.0

(Performanțe tipice pentru aparatul Coatron M4)

### **Garantie**

Acest produs este garantat doar dacă se utilizează în conformitate cu informațiile de pe eticheta proprie și din instrucțiune. TECO nu acordă garanție dacă produsul este utilizat în alt scop și în niciun caz TECO nu va fi răspunzător pentru daunele care rezultă din garanția expresă menționată mai sus.

## Referinte

1. Clauss, A., Gerinnungsphysiologische Schnellmethode zur bestimmung des Fibrinogens. Acta Haematol., 1957, 17: 237-246.
2. Shaw, T.S., Assays for Fibrinogen and its Derivatives, CRC Crit. Rev. Clin. Lab. Sci., 1977, 8: 145-192.
3. National Committee for the National Laboratory (NCCLS) Standards: Collection transport and preparation of blood specimens for coagulation testing and performance of coagulation assays. Document H21-A2, vol. 11, No. 23, 1991.
4. Scully, R.E. et al., Normal Reference Laboratory Values, N. Eng. J. Med., 1980, 302(37) : 37-48.
5. Okuno, T. and Selenko, V., Amer. J. Med. Tech., 1972, 38(6) : 196-201.

### Symbols key:

 Expiry date	 In Vitro Diagnostica	 Biological hazard	 Catalogue Number	 Consult accompanying documents
 Store at 2-8°C	 EU conformity	 Manufacturer	 Lot Number	 Authorized Representative





A0590-125

### Intended Use

The IBS Buffer solution is optimally formulated for use on Coagulation Analyzers. Use in accordance with the recommended Operators Manuals for installing and replacing Owrens Veronal Buffer (OVB). The IBS can be used as the diluent for preparing plasma dilutions in the performance of Fibrinogen determinations and Coagulation Factor Assays with all manual, mechanical, or photo-optical means of clot detection. Follow Reagent manufacturer's recommended procedures for preparation of plasma dilutions using Imidazole Buffered Saline.

### Contents & Determinations

Product	IBS Buffer
Cat.No.	A0590-125
IBS Buffer	1x125 mL

### Preparation

IBS: pH 7.3 - 7.4, liquid  
Ready to use.

### Storage and Stability

Unopened reagents are stable until the expiration date shown on the label stored at 2-8°C.

### Precautions

Avoid contact with skin and eyes. Wear suitable protective clothing. Dispose components in compliance with local regulations for infectious material.

### Warranty

This product is warranted to perform in accordance with its labelling and literature. TECO disclaims any implied warranty of merchantability or fitness for any other purpose, and in no event will TECO be liable for any consequential damages arising out of aforesaid express warranty.

Symbols key:

Expiry date	In Vitro Diagnostica	Biological hazard	Catalogue Number	Consult accompanying documents
Store at 2-8°C	EU conformity	Manufacturer	Lot. Number	Authorized Representative



A0590-125

### Verwendungszweck

Die IBS Pufferlösung (Imidazole Buffered Saline) wird für die Verdünnung von Plasma verwendet werden, wie es z.B. bei der koagulometrischen Bestimmung von Fibrinogen, Einzelfaktoren oder auch Verdünnungsreihen für die Methoden Kalibrierung notwendig ist.

### Inhalte und Bestimmungen

Produkt	IBS Puffer
Kat.Nr.	A0590-125
IBS Buffer	1x125 mL

### Vorbereitung

IBS: pH 7.3 - 7.4, flüssig  
Gebrauchsfertig

### Lagerung und Stabilität

Ungeöffnete Reagenzien sind bei Lagerung zwischen 2-8°C bis zum auf dem Etikett angegebenen Verfallsdatum haltbar.

### Vorsichtsmaßnahmen

Haut- und Augenkontakt vermeiden. Angemessene Schutzkleidung tragen. Bestandteile gemäß lokaler Vorschriften für infektiöse Materialien entsorgen.

### Garantie

Es wird garantiert, dass die Wirkungsweise dieses Produktes den Angaben auf der Packung und in der Produktliteratur entspricht. TECO haftet weder für die Verkäuflichkeit oder Eignung dieses Produktes für irgendwelche andere Zwecke noch für irgendwelche Folgeschäden, die sich aus der vorstehenden, expliziten Garantie ergeben.

Erklärung der Symbole:

Verfallsdatum	In-Vitro Diagnostik	Biologische Gefahr	Katalog-Nummer	Begleitpapiere beachten
Bei 2-8°C lagern	EU Konformität	Hersteller	Lot. - Nummer	Bevollmächtigter

### Intended Use

Clotting test for quantitative determination of the Activated Partial Thromboplastin Time (APTT) in citrated human plasma using silicate as contact activator for factor XII. Intended to be used by professional laboratory personnel using coagulation analysers. The determination of the APTT is used for the global evaluation of the intrinsic pathway and detecting deficiencies of the intrinsic coagulation factors VIII, IX, XI, XII, and Fletcher Factor or other coagulation methods where an APTT reagent is required<sup>1,2</sup>.

The APTT reagent in the kit contains phospholipids and silica to ensure a highly consistent and stable product<sup>3</sup>. The APTT reagent is lupus anticoagulant insensitive. Lupus anticoagulant insensitive reagents yield more reliable factor assay results than reagents, which are sensitive to lupus inhibitors<sup>4</sup>.

Prolonged clotting times may be observed in the following situations: deficiency of intrinsic coagulation factors, presence of heparin or other anticoagulants, which affect the intrinsic pathway and in liver diseases.

### Contents

Product	TECLOT aPTT-S
REF	A0320-050
aPTT-S reagent	10x5 mL
Determinations*	2000

\*Micro method (75µL in total)

APTT-S reagent contains colloidal silicate with phospholipids, buffer and preservatives.

Recommended additional material (not included in package)

Auxiliary reagents	A0350-050 Calcium Chloride 0.025M, 10 x 5mL
Calibration	not required
Quality Control	P6001-010 TECControl N, 10 x 1mL P6101-010 TECControl A, 10 x 1mL

### Preparation

Ready to use. Swirl APTT reagent gently prior usage

### Storage & Stability

Unopened reagents are stable until the expiration date shown on the label stored at 2°-8°C. Opened reagent:

	2-8 °C	20-25 °C	37 °C
APTT-S Reagent	30 days	8 days	8 hours

### Precautions

The reagent contains sodium azide (less than 0.1%) to prevent microbial growth. Avoid contact with skin and eyes. Wear suitable protective clothing. Dispose components in compliance with local regulations for infectious material.

### Specimen collection and storage<sup>5</sup>

- Obtain venous blood by clean vein puncture.
- Immediately mix 9 parts blood with 1 part 3.2% sodium citrate (0.105M) and mix well
- Centrifuge the specimen at 1500g for 10 min. (platelet < 10000/µL)
- Separate plasma after centrifugation and store in plastic or siliconised glass tube.
- Use plasma within 4 hours, otherwise store frozen and thaw just prior to use.

Stability of plasma: 4h at 18-26°C 8h at 2-8° 14d at -20°C 6m at -70°C

### Procedure

#### A. Automated Method: Coatron A

See application book of device

#### B. Manual Method: Coatron X

- Prewarm **CaCl<sub>2</sub>** (0.025M) at 37°C for at least 10 min.
- Pipette **25 µl of sample** into a test cuvette. Prewarm at 37°C for 1-2 minutes.
- Add **25 µl APTT-S reagent** and incubate exactly for **3 min** at 37°C.
- Add **25 µl of CaCl<sub>2</sub>** (0.025M) and simultaneously start test.
- Record the clotting time in seconds.

### Expected Results

Typical normal results are 27-42 sec. However results are influenced by the method of clot detection and can vary from laboratory to laboratory. Each laboratory is recommended to establish its own normal range on the specific instrument used.

### Quality Control

TEControl or other commercial control plasma should be used for reliable quality control of performance at a frequency in accordance with good laboratory practice (GLP). TECControl can be frozen one time after reconstitution. 120-150 µL stored in closed polypropylen tubes at -20°C is stable for 30 days

### Limitations

- Specimen Collection. AVOID:
  - Use only plastic tubes or siliconised glass.
  - Delayed mixing of blood with anticoagulant.
  - Contamination with tissue thromboplastin.
  - Improper ratio of anticoagulant with blood.
  - Hemolyzed, icteric or lipemic samples may interfere optical systems
- Laboratory Techniques
  - Perform tests at 37°C.
  - Use only high purity water.
  - Optimum pH is 7.0-7.5.
- Interfering substances
  - Bilirubin 40mg/dL
  - Haemoglobin 1000 mg/dL

### Performance Characteristics

#### Typical performance on instrument Coatron X

<b>Precision:</b>	CV% (within run)	CV% (inter-runs)
QC control	< 3,0	< 5,0

#### Factor & Heparin sensitivity:

Factor (%)	APTT Clotting time (s)		
	F VIII	F IX	F XI
< 1%	100	80	103
10%	53	52	58
40%	40	39	41
100%	35	35	358

Heparin (U/mL)	0 U/mL	0,2 U/mL	0,4 U/mL
APTT clotting time (s)	35	70	180

These values should be used as guidelines only. Each laboratory should establish factor or heparin sensitivity using its own instruments and techniques.

### Warranty

This product is warranted to perform in accordance with its labelling and literature. TECO disclaims any implied warranty of merchantability or fitness for any other purpose, and in no event will TECO be liable for any consequential damages arising out of aforesaid express warranty.

### References

- Proctor RR, Rapaport SI. The partial thromboplastin time with kaolin. A simple screening test for first stage plasma clotting factor deficiencies. *Am J Clin Pathol* 36, 212-219 (1961).
- Triplett DA, Harms CS, Koepke JA. The effect of heparin on the activated partial thromboplastin time. *Am J Clin Pathol* 70, 556-569 (1978).
- Stevenson KJ, Easton AC, Thomson JM, Poller L. The reliability of activated partial thromboplastin time methods and the relationship to lipid composition and ultrastructure. *Thromb Haemost* 55, 250-258 (1986).
- Denis-Magdelaine A, Flahault A, Verdy E. Sensitivity of sixteen APTT reagents for the presence of lupus anticoagulants. *Haemostasis* 25, 98-105 (1995).
- NCCLS: Guidelines for the Standardized Collection, Transport and Preparation of Blood Specimens for Coagulation Testing and Performance of Coagulation Assays

Symbols key:

Expiry date	In Vitro Diagnostica	Biological hazard	Catalogue Number	Consult accompanying documents
Store at 2-8°C	EU conformity	Manufacturer	Lot. Number	Authorized Representative



IVD

REF

A0320-050

**Verwendungszweck**

Dieses Produkt ist bestimmt für die quantitative Bestimmung der aktivierten partiellen Thromboplastinzeit (APTT) in humanen Citratplasma mit Hilfe von Silikat als Kontaktaktivator für Faktor XII. Die Anwendung ist bestimmt für medizinisches Fachpersonal und benötigt einen Gerinnungsanalyser.

Die Bestimmung der APTT dient der globalen Auswertung des intrinsischen Gerinnungssystems, sowohl zum Nachweis von Mängeln bei den intrinsischen Koagulationsfaktoren VIII, IX, XI, XII und Fletcher Faktor oder anderer Koagulationsmethoden, bei denen ein APTT - Reagenz benötigt wird.<sup>1,2</sup>

Das APTT Reagenz in diesem Kit enthält Phospholipide und Silizium, um ein sehr widerstandsfähiges und stabiles Produkt zu gewährleisten<sup>3</sup>. Das Reagenz reagiert nicht auf Lupus Antikoagulant und liefert daher verlässlichere Ergebnisse bei Faktorbestimmungen<sup>4</sup>. Verlängerte Gerinnungszeiten können bei den folgenden Situationen beobachtet werden: Mangel an intrinsischen Koagulationsfaktoren, Vorhandensein von Heparin oder andere Antikoagulantien, die das intrinsische System beeinflussen und bei Lebererkrankungen.

**Inhalt**

Produkt	TECLOT aPTT-S
REF	A0320-050
aPTT-S Reagenz	10x5 mL
Bestimmungen*	2000

\*Micro Methode (75µL insgesamt)

Das APTT-S Reagenz enthält kolloidales Silikat mit Phospholipiden, Puffer und Konservierungsstoffe.

**Zusätzlich notwendige Reagenzien (nicht in der Packung vorhanden)**

Hilfsreagenzien	A0350-050 Calcium Chloride 0,025M, 10 x 5mL
Kalibration	Nicht notwendig
Qualitätskontrolle	P6001-010 TECControl N, 10 x 1mL P6101-010 TECControl A, 10 x 1mL

**Vorbereitung**

Das Reagenz ist gebrauchsfertig und muss vor dem Gebrauch leicht aufgemischt werden.

**Lagerung und Stabilität**

Ungeöffnete Reagenzien sind bei Lagerung zwischen 2-8°C bis zum auf dem Etikett angegebenen Verfallsdatum stabil. Geöffnetes Reagenz:

	2-8 °C	20-25 °C	37°C
APTT-S Reagenz	30 Tage	8 Tage	8 Stunden

**Vorsichtsmaßnahmen**

Das Reagenz beinhaltet Natriumazid (< 0.1%). Augen und Hautkontakt vermeiden. Geeignete Schutzkleidung tragen. Abfall gemäß lokaler Bestimmungen für infektiöse Materialien entsorgen.

**Probenentnahme und Lagerung <sup>5</sup>**

1. Venöses Blut mittels Venenpunktur unter sauberen Bedingungen entnehmen.
2. Sofort 9 Teile Blut mit einem Teil 3,2% Natriumzitrat (0,105M) gut mischen.
3. Probe bei 1500g 10Minuten lang zentrifugieren (Thrombozyten <10000/µl)
4. Plasma nach der Zentrifugierung entfernen und in einem Röhrchen aus Plastik oder silikonisiertes Glas aufbewahren.
5. Plasma innerhalb von 4 Stunden verwenden, andernfalls gefroren lagern und kurz vor Gebrauch auftauen.

Stabilität von Plasma: 4h bei 18-26°C 8h bei 2-8° 14d bei -20°C 6m bei -70°C

**Verfahren****A. Automatenmethode: Coatron A**

Siehe Applikationsbuch des Gerätes

**B. Manuelle Methode: Coatron X**

1. Calciumchlorid (0,025M) mind. 10 Minuten lang bei 37°C erwärmen.
2. **25µl Probe** in eine Küvette pipettieren. Bei 37°C für 1-2 min vorwärmen.
3. **25µl APTT-S** Reagenz hinzufügen und für genau **3 min bei 37°C inkubieren**
4. **25µl CaCl<sub>2</sub>** (0,025M) hinzufügen und gleichzeitig Test starten.
5. Gerinnungszeit in Sekunden notieren.

**Erwartete Ergebnisse**

Typische normale Ergebnisse liegen bei 27-42 Sekunden. Jedoch sind die Ergebnisse von der verwendeten Methode der Gerinnungsbestimmung abhängig und können in verschiedenen Labors unterschiedlich ausfallen. Jedem Labor wird empfohlen, eine eigene Ergebnisreihe und den Normalbereich mit dem verwendeten Gerät zu erstellen.

**Qualitätskontrolle**

TEControl oder anderes kommerzielles Kontrollplasma sollte in regelmäßigen Abständen entsprechend Laborrichtlinien gemessen werden. TEControl kann einmalig wieder eingefroren werden. Hierfür 120-150µL in einem verschließbaren polypropylen Gefäß bei -20°C aufbewahren und innerhalb der nächsten 30 Tage verwenden.

**Vorschriften****A. Probenvorbereitung. Achten Sie auf:**

1. nur Plastikröhrchen oder silikonisiertes Glas verwenden
2. verzögertes Mischen von Blut mit Antikoagulant vermeiden
3. Kontaminierung mit Gewebethromboplastin vermeiden
4. falsches Verhältnis von Antikoagulant und Blut vermeiden
5. Hämolytische, lipämische oder ikterische Proben können optische Systeme stören

**B. Labortechniken**

1. Tests bei 37°C durchführen
2. nur hochreines Wasser verwenden
3. der optimale pH Wert ist 7,0-7,5

**C. Interferenzen**

1. Bilirubin: kein Effekt unter 40mg/dL
2. Hämoglobin: kein Effekt unter 1000mg/dL

**Leistungsdaten****Typische Leistungsdaten beim Gerät Coatron X**

**Präzision:** VK% (Einzellauf) CV% (Mehrfachlauf)

QC control < 3,0 < 5,0

**Faktor & Heparin Empfindlichkeit:**

Faktor (%)	APTT Gerinnungszeit (s)		
	F VIII	F IX	F XI
< 1%	100	80	103
10%	53	52	58
40%	40	39	41
100%	35	35	35

Heparin (U/mL)	0 U/mL	0,2 U/mL	0,4 U/mL
APTT Gerinnungszeit	35	70	180

Diese Werte sollen nur als Richtlinien verwendet werden. Jedes Labor sollte mit eigenen Instrumenten und Techniken Sensitivitätswerte erstellen.

**Garantie**

Es wird garantiert, dass die Wirkungsweise dieses Produktes den Angaben auf der Packung und in der Produktliteratur entspricht. TECO haftet weder für die Veräußerlichkeit oder Eignung dieses Produktes für irgendwelche andere Zwecke noch für irgendwelche Folgeschäden, die sich aus der vorstehenden, expliziten Garantie ergeben.

**Referenzen**

1. Proctor RR, Rapaport SI. The partial thromboplastin time with kaolin. A simple screening test for first stage plasma clotting factor deficiencies. *Am J Clin Pathol* 36, 212-219 (1961).
2. Triplett DA, Hams CS, Koepke JA. The effect of heparin on the activated partial thromboplastin time. *Am J Clin Pathol* 70, 556-569 (1978).
3. Stevenson KJ, Easton AC, Thomson JM, Poller L. The reliability of activated partial thromboplastin time methods and the relationship to lipid composition and ultrastructure. *Thromb Haemost* 55, 250-258 (1986).
4. Denis-Magdelaine A, Flahault A, Verdy E. Sensitivity of sixteen APTT reagents for the presence of lupus anticoagulants. *Haemostasis* 25, 98-105 (1995).
5. NCCLS: Guidelines for the Standardized Collection, Transport and Preparation of Blood Specimens for Coagulation Testing and Performance of Coagulation Assays

Erklärung der Symbole:



Verfallsdatum



In-Vitro Diagnostik



Biologische Gefahr



Katalog-Nummer



Begleitpapiere beachten





IVD

REF

P6001-010

**Intended Use**

Use as a normal control for following coagulation tests:

**PT, APTT, Thrombin time, Fibrinogen,  
Anti-thrombin and D-Dimer**

**Contents**

10 x 1mL freeze dried citrate-anticoagulated human plasma

**Preparation**

Reconstitute individual vials with **1,0 ml** distilled water. Allow to stand at room temperature, with occasional swirling, for 15 min before use. Be certain all particulate matter is well dissolved.

PT whole blood (TEClot PT-B): Reconstitute individual vials with **1,7 ml** distilled water.

**Storage & Stability**

Unopened vials are stable until the expiration date shown on the label stored at 2°-8°C.

Dissolved plasma change analytic levels below 10% if stored as following:

-20 °C	2-8 °C	20-25 °C
1 month	8 hours	4 hours

Dissolved plasma can be refrozen only one time in aliquots (120-150µL). Stored at -20°C in closed polypropylene tubes, the aliquots must be used within 30 days.

**Precautions**

This product contains substance from human origin!  
Avoid contact with skin and eyes. Wear suitable protective clothing. Dispose components in compliance with local regulations for infectious material. All components are checked for HIV, HBV and HCV. However products from human blood should be considered as potentially infectious.

**Expected Results**

Refer to "Certificate of Analysis".

**Warranty**

This product is warranted to perform in accordance with its labelling and literature. TECO disclaims any implied warranty of merchantability or fitness for any other purpose, and in no event will TECO be liable for any consequential damages arising out of aforesaid express warranty.

Symbols key:

Expiry date	In Vitro Diagnostica	Biological hazard	Catalogue Number	Consult accompanying documents
Store at 2-8°C	EU conformity	Manufacturer	Lot. Number	Authorized Representative





### Verwendungszweck

Als normale Kontrolle für folgende Gerinnungstests verwenden:

**PT, APTT, Thrombinzeit, Fibrinogen,  
Antithrombin und D-Dimer**

### Inhalt

10 x 1mL gefriergetrocknetes mit Zitrat versetztes gerinnungshemmendes Humanplasma

### Vorbereitung

Die einzelnen Fläschchen mit 1,0ml destilliertem Wasser anlösen. Fläschchen bei Raumtemperatur bis zur Anwendung unter gelegentlichen Verwirbeln 15 Minuten lang stehen lassen. Stellen Sie sicher, dass alle Partikel gut aufgelöst sind.

Vollblut PT (TEClot PT-B): einzelne Fläschchen mit 1,7ml destilliertem Wasser anlösen.

### Lagerung und Stabilität

Ungeöffnete Fläschchen sind bei Lagerung zwischen 2-8°C zum bis auf dem Etikett angegebenen Verfallsdatum haltbar.

Gelöstes Plasma verändern die analytischen Levels unter 10% wenn wie folgt gelagert:

-20 °C	2-8 °C	20-25 °C
1 Monat	8 Stunden	4 Stunden

Gelöstes Plasma kann einmalig wiedereingefroren werden. Die Aliquots (120-150µL) sind 30 Tage haltbar, wenn sie in polypropylen Gefäßen bei -20°C aufbewahrt werden.

### Vorsichtsmaßnahmen

Dieses Produkt enthält Substanzen humanen Ursprungs! Haut- und Augenkontakt vermeiden. Angemessene Schutzkleidung tragen. Abfälle laut lokaler Regelungen für infektiöse Materialien entsorgen. Alle Bestandteile wurden auf HIV, HBV und HCV getestet. Trotzdem müssen Produkte aus menschlichem Blut immer als potentiell infektiös angesehen werden.

### Erwartete Ergebnisse

Lesen Sie das Analysenzertifikat

### Garantie

Es wird garantiert, dass die Wirkungsweise dieses Produkts den Angaben auf der Packung und in der Produktliteratur entspricht. TECO haftet weder für die Verkäuflichkeit oder Eignung dieses Produktes für irgendwelche andere Zwecke noch für irgendwelche Folgeschäden, die sich aus der vorstehenden, expliziten Garantie ergeben.

Erklärung der Symbole:

Verfallsdatum	In-Vitro Diagnostik	Biologische Gefahr	Katalog-Nummer	Begleitpapiere beachten
Bei 2-8°C lagern	EU Konformität	Hersteller	Lot. - Nummer	Bevollmächtigter





IVD

REF

P6101-010

**Intended Use**

Use as an abnormal control for following coagulation tests:

**PT, APTT, Thrombin time, Fibrinogen,  
Antithrombin and D-Dimer**

**Contents**

10 x 1mL freeze dried citrate-anticoagulated human plasma

**Preparation**

Reconstitute individual vials with **1,0 ml** distilled water. Allow to stand at room temperature, with occasional swirling, for 15 min before use. Be certain all particulate matter is well dissolved.

PT whole blood (TEClot PT-B): Reconstitute individual vials with **1,7 ml** distilled water.

**Storage & Stability**

Unopened vials are stable until the expiration date shown on the label stored at 2°-8°C.

Dissolved plasma change analytic levels below 10% if stored as following:

-20 °C	2-8 °C	20-25 °C
1 month	8 hours	4 hours

Dissolved plasma can be refrozen only one time in aliquots (120-150µL). Stored at -20°C in closed polypropylene tubes, the aliquots must be used within 30 days.

**Precautions**

This product contains substance from human origin!  
Avoid contact with skin and eyes. Wear suitable protective clothing. Dispose components in compliance with local regulations for infectious material. All components are checked for HIV, HBV and HCV. However products from human blood should be considered as potentially infectious.

**Expected Results**

Refer to "Certificate of Analysis".

**Warranty**

This product is warranted to perform in accordance with its labelling and literature. TECO disclaims any implied warranty of merchantability or fitness for any other purpose, and in no event will TECO be liable for any consequential damages arising out of aforesaid express warranty.

Symbols key:

Expiry date	In Vitro Diagnostica	Biological hazard	Catalogue Number	Consult accompanying documents
Store at 2-8°C	EU conformity	Manufacturer	Lot. Number	Authorized Representative



### Verwendungszweck

Als abnormale Kontrolle für folgende Gerinnungstests verwenden:

**PT, APTT, Thrombinzeit, Fibrinogen,  
Antithrombin und D-Dimer**

### Inhalt

10 x 1mL gefriergetrocknetes mit Zitrat versetztes gerinnungshemmendes Humanplasma

### Vorbereitung

Die einzelnen Fläschchen mit 1,0ml destilliertem Wasser anlösen. Fläschchen bei Raumtemperatur bis zur Anwendung unter gelegentlichen Verwirbeln 15 Minuten lang stehen lassen. Stellen Sie sicher, dass alle Partikel gut aufgelöst sind.

Vollblut PT (TEClot PT-B): einzelne Fläschchen mit 1,7ml destilliertem Wasser anlösen.

### Lagerung und Stabilität

Ungeöffnete Fläschchen sind bei Lagerung zwischen 2-8°C zum bis auf dem Etikett angegebenen Verfallsdatum haltbar.

Gelöstes Plasma verändern die analytischen Levels unter 10% wenn wie folgt gelagert:

-20 °C	2-8 °C	20-25 °C
1 Monat	8 Stunden	4 Stunden

Gelöstes Plasma kann einmalig wiedereingefroren werden. Die Aliquots (120-150µL) sind 30 Tage haltbar, wenn sie in polypropylen Gefäßen bei -20°C aufbewahrt werden.

### Vorsichtsmaßnahmen

Dieses Produkt enthält Substanzen humanen Ursprungs! Haut- und Augenkontakt vermeiden. Angemessene Schutzkleidung tragen. Abfälle laut lokaler Regelungen für infektiöse Materialien entsorgen. Alle Bestandteile wurden auf HIV, HBV und HCV getestet. Trotzdem müssen Produkte aus menschlichem Blut immer als potentiell infektiös angesehen werden.











### Erwartete Ergebnisse

Lesen Sie das Analysenzertifikat

### Garantie

Es wird garantiert, dass die Wirkungsweise dieses Produkts den Angaben auf der Packung und in der Produktliteratur entspricht. TECO haftet weder für die Verkäuflichkeit oder Eignung dieses Produktes für irgendwelche andere Zwecke noch für irgendwelche Folgeschäden, die sich aus der vorstehenden, expliziten Garantie ergeben.

Erklärung der Symbole:

 Verfallsdatum	 In-Vitro Diagnostik	 Biologische Gefahr	 Katalog-Nummer	 Begleitpapiere beachten
 Bei 2-8°C lagern	 EU Konformität	 Hersteller	 Lot. - Nummer	 Bevollmächtigter





IVD

REF

P8001-005

**Intended Use**

Use as a calibrator or normal control for following coagulation tests:

**PT, APTT, Thrombin time, Fibrinogen,  
Factors: II, V, VII, VIII, IX, X, XI, XII,  
Antithrombin, Protein-C, free Protein-S,  
D-Dimer**

**Contents**

5 x 1 mL freeze dried citrate-anticoagulated human plasma

**Preparation**

Reconstitute individual vials with **1,0 ml** distilled water. Allow to stand at room temperature, with occasional swirling, for 15 min before use. Be certain all particulate matter is well dissolved.

PT whole blood (TECLOT PT-B CAT=A0260 xxx): Reconstitute individual vials with **1,7 ml** distilled water.

**Storage & Stability**

Unopened vials are stable until the expiration date shown on the label stored at 2°-8°C.

Dissolved plasma change analytic levels below 10% if stored as following:

-20 °C	2-8 °C	20-25 °C	37°C
30 days	24h	8h	2 hours

Dissolved plasma can be refrozen only one time in aliquots (120-150µL). Stored at -20°C in closed polypropylene tubes, the aliquots must be used within 30 days.

**Precautions: Potential Biohazardous material**

This product contains substance from human origin! Avoid contact with skin and eyes. Wear suitable protective clothing. Dispose components in compliance with local regulations for infectious material. All components are checked for HIV, HBV and HCV. However products from human blood should be considered as potentially infectious.

**Performance Characteristics:**

Refer to "Certificate of Analysis".

**Limitations:**

The control plasma is subject to the limitations of the assay system (reagent + instrument). Results out of expected range may indicate deterioration, false test calibration or problems with one or more components of the test system

**Warranty**

This product is warranted to perform in accordance with its labelling and literature. TECO disclaims any implied warranty of merchantability or fitness for any other purpose, and in no event will TECO be liable for any consequential damages arising out of aforesaid express warranty.

Symbols key:

Expiry date	In Vitro Diagnostica	Biological hazard	Catalogue Number	Consult accompanying documents
Store at 2-8°C	EU conformity	Manufacturer	Lot. Number	Authorized Representative





IVD

REF

P8001-005

**Verwendungszweck**

Als Kalibrator oder Normalkontrolle für folgende Gerinnungstests verwenden:

**PT, APTT, Thrombinzeit, Fibrinogen,  
Faktoren: II, V, VII, VIII, IX, X, XI, XII,  
Antithrombin, Protein-C, freies Protein-S,  
D-Dimer**

**Inhalt**

5 x 1mL gefriergetrocknetes mit Zitrat versetztes gerinnungshemmendes Humanplasma

**Vorbereitung**

Die einzelnen Fläschchen mit 1,0ml destilliertem Wasser anlösen. Fläschchen bei Raumtemperatur bis zur Anwendung unter gelegentlichen Verwirbeln 15 Minuten lang stehen lassen. Stellen Sie sicher, dass alle Partikel gut aufgelöst sind.

Vollblut PT (TEClot PT-B CAT=A0260 xxx): einzelne Fläschchen mit 1,7ml destilliertem Wasser anlösen.

**Lagerung und Stabilität**

Ungeöffnete Fläschchen sind bei Lagerung zwischen 2-8°C zum bis auf dem Etikett angegebenen Verfallsdatum haltbar.

Gelöstes Plasma verändern die analytischen Levels unter 10% wenn wie folgt gelagert:

-20 °C	2-8 °C	20-25 °C	37°C
30 Tage	24 Stunden	8 Stunden	2 Stunden

Gelöstes Plasma kann einmalig wiedereingefroren werden. Die Aliquots (120-150µL) sind 30 Tage haltbar, wenn sie in polypropylen Gefäßen bei -20°C aufbewahrt werden.

**Vorsichtsmaßnahmen: Potentiell infektiöses Material**

Dieses Produkt enthält Substanzen humanen Ursprungs! Haut- und Augenkontakt vermeiden. Angemessene Schutzkleidung tragen. Abfälle laut lokaler Regelungen für infektiöse Materialien entsorgen. Alle Bestandteile wurden auf HIV, HBV und HCV getestet. Trotzdem müssen Produkte aus menschlichem Blut immer als potentiell infektiös angesehen werden.

**Erwartete Ergebnisse**

Lesen Sie das Analysenzertifikat

**Einschränkungen:**

Das Kontrollplasma unterliegt den Einschränkungen der verwendeten Reagenzien und Geräte. Ergebnisse außerhalb des Sollbereichs können verursacht werden durch abgelaufene Materiale, ungültige Methodenkalibration oder Problemen an Reagenz, Gerät oder Zubehör.

**Garantie**

Es wird garantiert, dass die Wirkungsweise dieses Produkts den Angaben auf der Packung und in der Produktliteratur entspricht. TECO haftet weder für die Veräußerlichkeit oder Eignung dieses Produktes für irgendwelche andere Zwecke noch für irgendwelche Folgeschäden, die sich aus der vorstehenden, expliziten Garantie ergeben.

Erklärung der Symbole:

Verfallsdatum	In-Vitro Diagnostik	Biologische Gefahr	Katalog-Nummer	Begleitpapiere beachten
Bei 2-8°C lagern	EU Konformität	Hersteller	Lot. - Nummer	Bevollmächtigter





## STATEMENT

We, ACON Laboratories, Inc., having a registered office at *5850 Oberlin Drive #340, San Diego, CA 92121* authorize SRL Sanmedico having a registered office at *A. Corobceanu street 7A, apt. 9, Chisinău, MD-2012, Moldova*

to register, notify, renew or modify the registration of medical devices on the territory of the Republic of Moldova.

Date: January 3, 2023

Signature:

A handwritten signature in black ink, appearing to read "Xie", followed by a horizontal line.

Qiyi Xie, Md, MPH  
Sr. Officer, Regulatory & Clinical Affairs  
ACON Laboratories, Inc.  
Ph: 858-875-8011  
Email: [qxie@aconlabs.com](mailto:qxie@aconlabs.com)



# Certificate

No. Q5 104507 0001 Rev. 03

**Holder of Certificate:** **ACON Laboratories, Inc.**  
5850 Oberlin Drive, #340  
San Diego CA 92121  
USA

**Certification Mark:**



**Scope of Certificate:** **Design and Development, Manufacture and distribution of In Vitro Diagnostic Test Kits and Reagents for the Determination of Infectious Diseases, Clinical Chemistry, Drugs of Abuse, Tumor/Cardiac Marker, Fertility/Pregnancy and Blood Glucose Monitoring System, Lancing Devices and Lancets**

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a quality management system, which meets the requirements of the listed standard(s). All applicable requirements of the testing and certification regulation of TÜV SÜD Group have to be complied with. For details and certificate validity see: [www.tuvsud.com/ps-cert?q=cert:Q5 104507 0001 Rev. 03](http://www.tuvsud.com/ps-cert?q=cert:Q5_104507_0001_Rev._03)

**Report No.:** SH22743A01

**Valid from:** 2022-09-15  
**Valid until:** 2025-09-06

**Date,** 2022-09-15



Christoph Dicks  
Head of Certification/Notified Body

# Certificate

No. Q5 104507 0001 Rev. 03

## Applied Standard(s):

EN ISO 13485:2016  
Medical devices - Quality management systems -  
Requirements for regulatory purposes  
(ISO 13485:2016)  
DIN EN ISO 13485:2016

## Facility(ies):

**ACON Laboratories, Inc.**  
**5850 Oberlin Drive, #340, San Diego CA 92121, USA**

Address holder for registration only

**ACON Laboratories, Inc.**  
**10125 Mesa Rim Road, San Diego CA 92121, USA**

Manufacture and distribution of  
In Vitro Diagnostic Test Kits and Reagents for the Determination of  
Infectious Diseases, Clinical Chemistry, Drugs of Abuse,  
Tumor/Cardiac Marker, Fertility/Pregnancy and Blood Glucose  
Monitoring System, Lancing Devices and Lancets

**ACON Laboratories, Inc.**  
**6865 Flanders Dr., Suite B, San Diego CA 92121, USA**

Storage of  
In Vitro Diagnostic Test Kits and Reagents for the Determination of  
Infectious Diseases, Clinical Chemistry, Drugs of Abuse,  
Tumor/Cardiac Marker, Fertility/Pregnancy and Blood Glucose  
Monitoring System, Lancing Devices and Lancets

**AZURE Institute, Inc.**  
**10125 Mesa Rim Road, San Diego CA 92121, USA**

Design and Development of  
In Vitro Diagnostic Test Kits and Reagents for the Determination of  
Infectious Diseases, Clinical Chemistry, Drugs of Abuse,  
Tumor/Cardiac Marker, Fertility/Pregnancy and Blood Glucose  
Monitoring System, Lancing Devices and Lancets

**Acon Laboratories Inc.**  
**Guerrero Negro 9942 Parque Industrial Pacifico IV, 22644**  
**Tijuana B.C. CP, MEXICO**

Manufacture of  
blood glucose test strips, antigen rapid test and IgG/IgM antibody  
rapid test for infectious disease.



# EC Certificate

Full Quality Assurance System

Directive 98/79/EC on In Vitro Diagnostic Medical Devices (IVDD), Annex IV excluding (4, 6)  
(List A and B and devices for self-testing)

**No. V1 104507 0003 Rev. 06**

**Manufacturer:** **ACON Laboratories, Inc.**

5850 Oberlin Drive, #340  
San Diego CA 92121  
USA

**Product Category(ies):** **Blood glucose measuring systems for self testing  
and self-testing devices for clinical chemistry,  
hematology and pregnancy and ovulation**

The Certification Body of TÜV SÜD Product Service GmbH declares that the aforementioned manufacturer has implemented a quality assurance system for design, manufacture and final inspection of the respective devices / device families in accordance with IVDD Annex IV. This quality assurance system conforms to the requirements of this Directive and is subject to periodical surveillance. For marketing of List A devices an additional Annex IV (4) certificate is mandatory. All applicable requirements of the testing and certification regulation of TÜV SÜD Group have to be complied with. For details and certificate validity see: [www.tuvsud.com/ps-cert?q=cert:V1\\_104507\\_0003\\_Rev.06](http://www.tuvsud.com/ps-cert?q=cert:V1_104507_0003_Rev.06)

**Report no.:** SH22743EXT01

**Valid from:** 2022-05-04

**Valid until:** 2025-05-26

**Date,** 2022-05-04

Christoph Dicks  
Head of Certification/Notified Body



# EC Certificate

Full Quality Assurance System

Directive 98/79/EC on In Vitro Diagnostic Medical Devices (IVDD), Annex IV excluding (4, 6)  
(List A and B and devices for self-testing)

**No. V1 104507 0003 Rev. 06**

## Model(s):

On Call Plus Blood Glucose Monitoring System,  
On Call Plus Blood Glucose Test Strips,  
On Call EZ II Blood Glucose Monitoring System,  
On Call Advanced Blood Glucose Monitoring System,  
On Call Advanced Blood Glucose Test Strips,  
On Call Chosen Blood Glucose Test Strips,  
On Call Vivid Blood Glucose Monitoring System (OGM-101),  
On Call Vivid Blood Glucose Test Strips (OGS-101),  
On Call Sharp Blood Glucose Monitoring System (OGM-121),  
On Call Sharp Blood Glucose Test Strips (OGS-121)  
On Call Plus II Blood Glucose Monitoring System (OGM-171),  
On Call Plus II Blood Glucose Test Strips (OGS-171),  
On Call Extra Blood Glucose Monitoring System (OGM-191),  
On Call Extra Blood Glucose Test Strips (OGS-191),  
On Call GK Dual Blood Glucose & Ketone Monitoring System (OGM-161),  
On Call Blood Ketone Test Strips (OGS-161),  
Urinalysis Reagent Strips (Urine),  
UTI Urinary Tract Infection Test Strips,  
Cholesterol Monitoring System (CCM-111),  
CHOL Total Cholesterol Test Devices (CCS-111),  
TRIG Triglycerides Test Devices (CCS-112),  
HDL High Density Lipoprotein Test Devices (CCS-113),  
3-1 Lipid Panel Test Devices (CCS-114),  
Cholesterol CTRL Control Devices,  
Cholesterol Monitoring System (CCM-101),  
CHOL Total Cholesterol Test Strips (CCS-101),  
PT/INR Monitoring System (CCM-151),  
PT/INR Test Strips (CCS-151),  
Hemoglobin Testing System (CCM-141),  
Hemoglobin Test Strips (CCS-141),  
hCG Pregnancy Rapid Test Cassette (Urine),  
Pregnancy Rapid Test Midstream,  
On Call Extra Mobile Blood Glucose Monitoring System (OGM-281),  
On Call Sure Blood Glucose Monitoring System (OGM-211),  
On Call Sure Sync Blood Glucose Monitoring System (OGM-212),  
On Call Sure Blood Glucose Test Strips (OGS-211),  
GIMA Blood Glucose Monitoring System,  
GIMA Bluetooth Blood Glucose Monitoring System,  
GIMA Blood Glucose Test Strips,  
On Call GU Dual Blood Glucose & Uric Acid Monitoring



# EC Certificate

Full Quality Assurance System

Directive 98/79/EC on In Vitro Diagnostic Medical Devices (IVDD), Annex IV excluding (4, 6)  
(List A and B and devices for self-testing)

## No. V1 104507 0003 Rev. 06

System (OGM-201),  
On Call Blood Uric Acid Test Strips (OGS-201),  
LH Ovulation Rapid Test Cassette (Urine),  
Ovulation Rapid Test Midstream,  
Ovulation & Pregnancy Test Combo Pack,  
On Call Extra Voice Blood Glucose Monitoring System  
(OGM-291),  
Early Detection Pregnancy Test,  
Digital Pregnancy Test,  
Go-Keto Blood Glucose & Ketone Monitoring System (OGM-  
161),  
Go-Keto Blood Ketone Test Strips (OGS-161),  
Go-Keto Blood Glucose Test Strips,  
On Call Extra GM Blood Glucose Monitoring System(OGM-  
191),  
On Call Extra GM Blood Glucose Test Strips (OGS-191),  
On Call Plus GM Blood Glucose Monitoring System,  
On Call Plus GM Blood Glucose Test Strips,  
Go-Keto Urinalysis Reagent Strips

### Facility(ies):

ACON Laboratories, Inc.  
5850 Oberlin Drive, #340, San Diego CA 92121, USA

ACON Laboratories, Inc.  
10125 Mesa Rim Road, San Diego CA 92121, USA

AZURE Institute, Inc.  
10125 Mesa Rim Road, San Diego CA 92121, USA

Acon Laboratories Inc.  
Guerrero Negro 9942 Parque Industrial Pacifico IV, 22644 Tijuana  
B.C. CP, MEXICO



## Declaration of Conformity

ACON Laboratories, Incorporated  
5850 Oberlin Drive #340  
San Diego, CA 92121, USA

**We, the manufacturer, declare under our sole responsibility that the  
*in vitro* diagnostic device:**

*Mission*<sup>®</sup> Urinalysis Reagent Strips (U031-XX1)

**classified as Others in the directive 98/79/EC,**

**meets all the provisions of the directive 98/79/EC on *in vitro* diagnostic  
medical devices which apply to it**

**The self-declaration is according to Annex III  
(excluding Section 6) of the Directive.**

Authorized Representative:  
Medical Device Safety Service GmbH  
Schiffgraben 41  
30175 Hannover, Germany

Signed this 11 day of February, 2020  
in San Diego, CA USA



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Qiyi Xie, MD, MPH  
Senior Staff, Regulatory Affairs & Clinical Affairs  
Acon Laboratories, Inc.





**ACON Laboratories, Inc.**

10125 Mesa Rim Road. • San Diego, CA 92121 • USA  
Tel: (858) 875-8000 • Fax: (858) 875-8099 • E-mail: [info@aconlabs.com](mailto:info@aconlabs.com)

November 11<sup>th</sup> 2016

**CERTIFICATION LETTER**

This letter is to certify that, Vitalie Goreacii, employed by Sanmedico SRL located at: Republic of Moldova, city Chisinau, str. Petricani 88/1 of. 10, MD-2059, have received all required training and is enabled and authorized to provide services with installation, commissioning, and maintenance to the products listed below:

Mission® U120 Urine Analyzer  
Mission® U120 Ultra Urine Analyzer  
Mission® U500 Urine Analyzer  
Mission® PT/INR Coagulation Monitoring System  
Mission® Cholesterol Monitoring System  
Mission® Ultra Cholesterol Monitoring System  
Mission® HB Hemoglobin Testing System  
Mission® Plus HB Hemoglobin Testing System  
OnCall® Glucose Meter

For further questions or inquiries regarding this matter, please refer to the contact information below.

Sincerely

A handwritten signature in black ink, appearing to read "Jassy Alvarenga", is written over a red circular stamp.



Jassy Alvarenga  
International Account Manager  
ACON Laboratories, Inc. S.A.  
[jalvarenga@aconlabs.com](mailto:jalvarenga@aconlabs.com)  
+1 858 875 8085

# **Mission**<sup>®</sup> Urinalysis Reagent Strips and Urine Analyzers



Obtain reliable and cost-effective results with *Mission*<sup>®</sup> Urinalysis Reagent Strips and Urine Analyzers!

- *Accurate*
- *Reliable*
- *Convenient*



# Urinalysis Reagent Strips

## Simple and Accurate

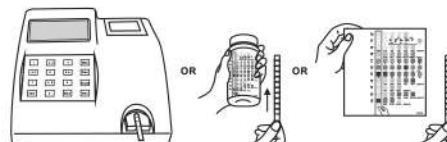
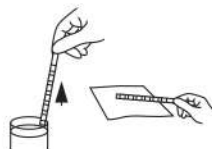
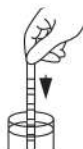
- Analytical sensitivity better than or comparable to market leaders
- High quality color chart ensures accurate visual reading

## Flexible

- Compatible for visual and analyzer reading
- Over 35 different combinations available

## Multiple Packaging Options and Long Shelf Life

- Canister Packaging
  - Available in 25, 50 and 100 strips per canister
  - 2 year shelf life for unopened canisters which 150 strips per kit without MA/CRE Combo offers cost savings and convenience for high volume testing
  - 3 month shelf life for strips in opened canisters
- Pouch Packaging
  - Individually packaged strips available in kit of 3 or 6 strips for visual reading only (includes 1 color chart)
  - Unique packaging maintains 2 year shelf life for all strips in the kit compared to 3 months for remaining strips in an opened canister



Step 1: Immerse strip into urine

Step 2: Remove excess urine

Step 3: Obtain results by analyzer or visual reading

No.	Catalog No.	No. of Parameters	Type of Strip <sup>§</sup>		Reading Availability				Parameters														
			Visual Reading	Analyzer Reading	Visual	U120	U120 Ultra	U500	ASC	GLU	BIL	KET	SG	BLO	PH	PRO	URO	NIT	LEU	ALB	CRE	CA	
1	U031-141	14	14C√		Yes	Yes	Yes	Yes	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
2	U031-131	13	13CE√		Yes	Yes	Yes	Yes	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
3	U031-111	11	11A√†		Yes	Yes	Yes	Yes	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
4	U031-101	10	10U√x		Yes	Yes	Yes	Yes		*	*	*	*	*	*	*	*	*	*	*	*	*	
5	U031-191	9	9U√x		Yes	Yes	Yes	Yes		*	*	*	*	*	*	*	*	*	*	*	*	*	
6	U031-081	8	8U√x		Yes	Yes	Yes	Yes		*	*	*	*	*	*	*	*	*	*	*	*	*	
7			8N√x		Yes	Yes	Yes	Yes		*		*	*	*	*	*	*	*	*	*	*	*	
8			8S√x		Yes	Yes	No	Yes		*		*	*	*	*	*	*	*	*	*	*	*	*
9			8K√x		Yes	Yes	No	Yes		*	*	*		*	*	*	*	*	*	*	*	*	*
10	U031-071	7	7N√x		Yes	Yes	Yes	Yes		*		*		*	*	*		*	*				
11	U031-061	6	6N√x	6NE√x	Yes	Yes	No	Yes		*				*	*	*		*	*				
12			6U√x	6UE√x	Yes	Yes	No	Yes			*		*	*	*	*	*	*	*				
13	U031-051	5	5B√x	5BE√x	Yes	Yes	No	No		*		*		*	*	*							
14			5N√x	5NE√x	Yes	Yes	Yes	No		*				*	*	*		*	*				
15			5S√x	5SE√x	Yes	Yes	No	No		*			*	*	*	*	*	*	*	*			
16			5U√x	5UE√x	Yes	Yes	No	No			*		*		*		*	*	*	*	*		
17	U031-041	4	4P√x	4PE√x	Yes	Yes	Yes	Yes		*					*		*	*					
18			4S√x	4SE√x	Yes	Yes	Yes	Yes		*		*		*	*	*							
19			4B√x	4BE√x	Yes	Yes	No	No		*			*	*	*	*	*	*	*	*			
20			4K√x	4KE√x	Yes	Yes	Yes	Yes		*		*		*	*	*	*	*	*	*	*		
21			4G√x	4GE√x	Yes	Yes	No	No		*			*	*	*	*	*	*	*	*	*		
22	4N√x	4NE√x	Yes	Yes	No	Yes					*	*	*	*	*	*	*	*	*	*	*	*	
23	U031-031	3	3P√x	3PE√x	Yes	Yes	Yes	Yes		*				*	*	*	*	*	*	*	*	*	
24			3K√x	3KE√x	Yes	Yes	Yes	Yes		*		*		*	*	*	*	*	*	*	*	*	*
25			3G√x	3GE√x	Yes	Yes	No	Yes		*		*		*	*	*	*	*	*	*	*	*	*
26			3N√x	3NE√x	Yes	Yes	No	Yes					*	*	*	*	*	*	*	*	*	*	*
27	U031-021	2	2G√x	2GE√x	Yes	Yes	Yes	Yes		*				*	*	*	*	*	*	*	*	*	
28			2K√x	2KE√x	Yes	Yes	Yes	Yes		*		*		*	*	*	*	*	*	*	*	*	*
29			2N√x	2NE√x	Yes	Yes	Yes	Yes											*	*			
30			2B√x	2BE√x	Yes	Yes	No	Yes					*	*	*	*	*	*	*	*	*	*	*
31			2U√x	2UE√x	Yes	Yes	No	Yes			*					*	*	*	*	*	*	*	*
32			2S√x	2SE√x	Yes	Yes	No	Yes				*		*	*	*	*	*	*	*	*	*	*
33	2C√	2CE√	Yes	Yes	Yes	Yes						*	*	*	*	*	*	*	*	*	*		
34	U031-011	1	1B√x	1BE√x	Yes	Yes	No	No					*	*	*	*	*	*	*	*	*	*	
35			1P√x	1PE√x	Yes	Yes	No	No						*	*	*	*	*	*	*	*	*	*
36			1G√x	1GE√x	Yes	Yes	Yes	No		*													
37			1K√x	1KE√x	Yes	Yes	No	No				*											
38			1R√x	1RE√x	Yes	Yes	No	No								*	*	*	*	*	*	*	*

### §Type of Strip:

Visual Strip Size: 1-6 Parameters: 80 mm x 5 mm; 7-14 Parameters: 108 mm x 5 mm

U120/U500 Strip Size: 1-14 Parameters: 108 mm x 5 mm

\*"E" means extended strip length for 1-6 Parameters and exclusive strip length for 13 Parameter

Default Type of Strip (U120/U500): 11A, 10U, 9U and 8N

Standard Black Canisters : Available for 25, 50 and 100 strips; 150 strips per kit without MA/CRE Combo

Pouch: Single-strip pouch available in kit of 3 or 6 for visual reading only

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 † FDA 510(k) Cleared  
 x FDA 510(k) Cleared and CLIA Waived

# U120 Urine Analyzer



## Accurate

- Up to 120 tests/hour in Continuous Test Option
- Test categories include Routine, STAT and QC
- Automatic calibration for accurate results and easy operation

## Reliable

- Can read strips with up to 14 parameters, including Microalbumin/Creatinine/Calcium
- Minimal training required

## Convenient Operation

- Saves and recalls the last 2,000 results automatically
- Audible beep signals operator to dip strips in urine
- Can print up to 3 copies per test for convenient reviewing and easy record keeping
- Option to print results on sticker paper for quick and simple record management

## Easy Data Management

- Includes RS232C and USB ports for easy data transfer to an external computer or LIS
- Record Operator/Patient ID by Manual Entry and Barcode Reader

## Specifications

Features	Specifications
Analyzer Type	Manual
Methodology	Reflectance Photometry
Detection	Photosensitive Diode
Throughput	Single Test Option: 60 tests/hour Continuous Test Option: 120 tests/hour
Test Categories	Routine, STAT and QC
Memory	Last 2,000 results
Strip Incubation Time	1 Minute
Wavelength of Monochromatic LED	525 nm and 635 nm
Default Strips	8, 9, 10, 11 Parameters (108 mm x 5 mm)
Strips Available	1-14 parameters (108 mm x 5 mm); see URS Parameters
Total Combinations Per Analyzer	4 Combinations
Analyzer Ports	RS232C Port for Barcode Reader or Data Transfer USB Port for Data Transfer 25 Pin Parallel Port for External Printer
Data Entry Capabilities	Operator/Patient ID - Manual Entry and Barcode Reader (Up to 20 characters)
Connection Capabilities	Internal Thermal Printer (included)      RS232C Barcode Reader (optional) Optional External Printer (not included)      USB or RS232C Data Transfer Cable (optional)
Major Readable Barcodes	Code 128, Code 39, Codabar (NW-7), EAN 8, EAN 13, Interleave 25, UPCA, UPCE
Calibration	Automatic
Available Languages on the Screen	English and additional language(s)
Operating Conditions	0-40°C (32-104°F); ≤85% RH
Storage Conditions	-5-50°C (23-122°F); ≤90% RH
Power Source	100-240 VAC, 50-60 Hz
Dimensions (L x W x H)	27.2 cm x 26.9 cm x 14.6 cm (10.7" x 10.6" x 5.7")
Display Dimensions (L x W)	10.8 cm x 5.7 cm (4.2" x 2.2")
Weight	2.6 kg (5.7 lbs) without batteries or power supply

## Ordering Information

Product Name	Catalog No.	Components	Kit Box Dimensions (L x W x H) & Weight	Carton Dimensions (L x W x H) & Weight	Number of Kits/Carton
U120 Urine Analyzer	U111-101 <sup>√X</sup>	1 Urine Analyzer 1 Strip Holder 2 Printer Paper Rolls	2 Fuses (2.0A) 1 Power Cord 1 Quick Start Guide 1 Instruction Manual	42.0 cm x 41.5 cm x 31 cm; 5.0 kg 16.4" x 16.2" x 12.1"; 176.4 oz	1
U120 Urine Analyzer with Barcode Reader	U111-111 <sup>√X</sup>	1 Urine Analyzer 1 Strip holder 2 Printer Paper Rolls 1 Barcode Reader (RS232C)	2 Fuses (2.0A) 1 Power Cord 1 Serial Splitter Cable (RS232C) 1 Quick Start Guide 1 Instruction Manual	44.5cm x 44.5cm x 40.0cm; 5.5 kg 17.5" x 17.5" x 15.7"; 194 oz	1
Barcode Reader	U221-111 <sup>√X</sup>	1 Barcode Reader (RS232C)	1 Serial Splitter Cable (RS232C)	23.6 cm x 10.8 cm x 7.8 cm; 0.482 kg 9.3" x 4.3" x 3.1"; 17.0 oz 63.0 cm x 37.0 cm x 30.0 cm; 12.0 kg 24.8" x 14.6" x 11.8"; 423.3 oz	22
Printer Paper Rolls	U121-101	4 Printer Paper Rolls	Thermal Paper (0.06 m x 20 m): 200 results/roll Sticker Paper (0.06 m x 9 m): 100 results/roll	12.0 cm x 12.0 cm x 6.5 cm; 0.36kg 4.7" x 4.7" x 2.6"; 12.7oz 63.0 cm x 37.0 cm x 30.0 cm; 19.4 kg 24.8" x 14.6" x 11.8"; 684.3 oz 12.0 cm x 12.0 cm x 6.5 cm; 0.4 kg 4.7" x 4.7" x 2.6"; 14.1 oz 63.0 cm x 37.0 cm x 30.0 cm; 21.4 kg 24.8" x 14.6" x 11.8"; 684.3 oz; 754.9 oz	50
U120 Data Transfer Kit	U221-131 <sup>√X</sup>	1 Data Transfer Cable (RS232C)	1 Package Insert	16.0 cm x 13.0 cm x 3.5 cm; 0.147 kg 6.3" x 5.1" x 1.4"; 5.2 oz 25.0 cm x 21.0 cm x 15.0 cm; 1.36 kg 9.8" x 8.3" x 5.9"; 48.0 oz	8

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# U120 Ultra Urine Analyzer



## Easy to Operate

- Large color touchscreen LCD for simple menu navigation
- Work List and Help Menu available for specimen review and troubleshooting
- Powered by AC adaptor or 6 AA batteries for easy portability
- Up to 2,000 patient memory and 800 Operator ID storage
- Ability to select Time Logout between 1-99 with minutes or hours option

## Accurate and Efficient

- Advanced CMOS Image Sensor ensures accurate readings
- Can read strips with up to 14 parameters, including Microalbumin, Creatinine and Calcium
- Option to edit test number sequence, or skip then return to specific test numbers
- Ability to edit abnormal results

## Simple Data Transfer

- Immediate transmission of LIS data using Bluetooth, LAN or WLAN
- Ability to update software with SD card or USB flash drive

## Unique Lockout Functions

- Strip Lockout
  - Pre-set option to prevent using strips of another brand, with a barcode reader or by manual entry
- User Lockout
  - Option to eliminate unapproved users with up to 800 operators
- QC Lockout
  - Prevents testing without passing QC
  - If QC tests fail, analyzer will switch to STAT mode and list "E" at the end of each test number

## Specifications

Feature	Specifications
Analyzer Type	Manual
Methodology	Reflectance Photometry
Detection	CMOS Image Sensor
Throughput	Single Test Option: 55 tests/hour; Continuous Test Option: 120 tests/hour
Test Modes	Quick Test Mode, Full Test Mode and Customized Test Mode
Test Category	Routine, STAT and QC
Lockout Functions	Strip Lockout: Available Upon Request; User/QC Lockout: Included with option to turn ON/OFF
Memory	Last 2,000 Records
Strip Incubation Time	1 Minute
Wavelength	390 nm - 770 nm
Strips Available	1-14 parameters (108 mm x 5 mm); see URS Parameters
Parameter Order	Can select the order of parameters for display and print out
Total Combinations Per Analyzer	Over 15 Combinations
Analyzer Ports	RS232C Port for Barcode Reader or Data Transfer and External Printer USB Ports for Keyboard or Data Transfer
Data Entry Capabilities	Operator ID, Patient ID/Name - Manual Entry and Barcode Reader (Up to 20 characters) Urine Color and Clarity, Strip Lot Number, and Expiration Date - Manual Entry
Connection Capabilities	Internal Thermal Printer (included) Bluetooth (included) Bluetooth Adaptor (optional) RS232C Barcode Reader (optional) USB or RS232C Data Transfer Cable (optional) SD Card or USB flash drive for Software Update (optional) Ethernet via USB to RJ45 Adaptor (optional) Keyboard (not included) Optional External Printer (not included)
Major Readable Barcodes	Code 39      EAN 8      French Pharmacode      Matrix 25      RSS Code 93      EAN 13      Industrial 25      MSI      Telepen Code 128      EAN 128      Interleave 25      Plessey      UPCA Codabar (NW-7)      Italy Pharmacode      UPCE
Screen Type	Large color touch screen LCD (12 cm x 9 cm)
LIS Interface	Formatted and compatible with HL-7 compliant, ACON standard interface, S interface, D interface, U interface and R interface for downloading of LIS data
Calibration	Automatic
Available Languages on the Screen	More than 10 languages available, including English
Analyzer Operating Conditions	0-40°C (32-104°F); 5%-85% RH
System Operating Conditions	15-30°C (59-86°F); 20%-80% RH
Storage Conditions	-5-50°C (23-122°F); ≤90% RH
Power Source	100-240 VAC, 45-65 Hz; 6 AA Alkaline Batteries
Line Leakage Current	0.5 mA
Dimensions (L x W x H)	26 cm x 15 cm x 18 cm (10" x 6" x 7")
Display Dimensions (L x W)	12 cm x 9 cm (5" x 4")
Weight	1.7 kg (3.7 lb) without batteries or power supply

## Ordering Information

Product Name	Catalog No.	Components	Kit Box Dimensions (L x W x H) & Weight	Carton Dimensions (L x W x H) & Weight	Number of Kits/Carton	
U120 Ultra Urine Analyzer	U114-101 ✓	1 Urine Analyzer 2 Test Tables 2 Test Table Inserts 2 Printer Paper Rolls	1 Power Cord and Supply Adapter 1 Brush 1 Quick Start Guide 1 Instruction Manual	40 cm x 39 cm x 36 cm; 4 kg	1	
				16" x 15" x 14"; 141 oz		
U120 Ultra Urine Analyzer with Barcode Reader	U114-111 ✓	1 Urine Analyzer 2 Test Tables 2 Test Table Inserts 2 Printer Paper Rolls 1 Barcode Reader (RS232C)	1 Power Cord and Supply Adapter 1 Brush 1 Quick Start Guide 1 Instruction Manual	40 cm x 39 cm x 36 cm; 4 kg	1	
				16" x 15" x 14"; 141 oz		
Barcode Reader	U124-111 ✓	1 Barcode Reader (RS232C)		23.6 cm x 10.8 cm x 7.8 cm; 0.36 kg	22	
				9.3" x 4.3" x 3.1"; 17.0 oz		
Printer Paper Rolls	U121-101	4 Printer Paper Rolls	Thermal Paper (0.06 m x 20 m): 200 results/roll	12.0 cm x 12.0 cm x 6.5 cm; 0.36 kg	50	
				4.7" x 4.7" x 2.6"; 12.7oz		24.8" x 14.6" x 11.8"; 684.3 oz
			Sticker Paper (0.06 m x 9 m): 100 results/roll	12.0 cm x 12.0 cm x 6.5 cm; 0.4 kg		63.0 cm x 37.0 cm x 30.0 cm; 21.4 kg
			4.7" x 4.7" x 2.6"; 14.1 oz	24.8" x 14.6" x 11.8"; 684.3 oz; 754.9 oz		
U120 Ultra Data Transfer Kit	U124-131 ✓	1 Data Transfer Cable (RS232C)    1 Package Insert		16.0 cm x 13.0 cm x 3.5 cm; 0.147 kg	8	
				6.3" x 5.1" x 1.4"; 5.2 oz		9.8" x 8.3" x 5.9"; 48.0 oz

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# U500 Urine Analyzer



## Accurate and Efficient

- Up to 500 tests/hour for medium/large volume sample testing
- Professional accuracy equivalent to market leader
- Automatic strip detection and alignment for better efficiency
- Test categories include Routine, STAT and QC

## Easy to Operate

- Large touch screen LCD offers simple menu navigation
- Uniquely designed strip platform/waste tray unit for easy one-step cleaning

## Convenient

- Automatic calibration and waste disposal reduce hands-on time
- Can read strips with up to 14 parameters, including Microalbumin/Creatinine/Calcium
- Strip selection of up to 4 combinations for analyzer reading
- Stores up to 2,000 records and automatically flags abnormal results
- Capable of printing results on sticker paper for quick and easy record management

## Data Management Capability

- Includes RS232C port for easy data transfer to an external computer or LIS
- Record Operator/Patient ID by Manual Entry and Barcode Reader

## Unique Lockout Functions

- Strip Lockout
  - Pre-set option to prevent using strips of another brand, with a barcode reader or by manual entry
- User Lockout
  - Option to eliminate unapproved users with up to 10 operators
- QC Lockout
  - Prevents testing without passing QC
  - If QC tests fail, analyzer will switch to STAT mode and list "E" at the end of each test number

## Specifications

Feature	Specifications
Analyzer Type	Semi-Automatic
Methodology	Reflectance Photometry
Detection	Photosensitive Diode
Throughput	500 tests/hour (Measuring cycle: 7 seconds/test)
Test Categories	Routine, STAT and QC
Lockout Functions	Strip Lockout: Available Upon Request; User/QC Lockout: Included with option to turn ON/OFF
Memory	Last 2,000 Records
Strip Incubation Time	1 Minute
Wavelength	525 and 635 nm
Default Strips	8, 9, 10, 11 Parameters (108 mm x 5 mm)
Strips Available	1-14 parameters (108 mm x 5 mm); see URS Parameters
Parameter Order	Can select the order of parameters for display and print out
Total Combinations Per Analyzer	4 Combinations
Waste Disposal Capacity	Up to 150 Strips
Analyzer Ports	RS232C Port for Barcode Reader or Data Transfer 25 Pin Parallel Port for External Printer
Data Entry Capabilities	Operator/Patient ID - Manual Entry and Barcode Reader (Up to 25 characters)
Connection Capabilities	Internal Thermal Printer (included)      RS232C Barcode Reader (optional) Optional External Printer (not included)      RS232C Data Transfer Cable (optional)
Major Readable Barcodes	Code 128, Code 39, Codabar (NW-7), EAN 8, EAN 13, Interleave 25, UPCA, UPC-E
Calibration	Automatic
Available Languages on the Screen	English and additional language(s)
Operating Conditions	0-40°C (32-104°F); ≤85% RH
Storage Conditions	-5-50°C (23-122°F); ≤90% RH
Power Source	100-240 VAC, 50-60 Hz
Dimensions (L x W x H)	36.6 cm x 28.3 cm x 19.5cm (14.4" x 11.1" x 7.7")
Display Dimensions (L x W)	11.5 cm x 9.0 cm (4.5" x 3.5")
Weight	4.0 kg (8.8 lbs) without batteries or power supply

## Ordering Information

Product Name	Catalog No.	Components	Kit Box Dimensions (L x W x H) & Weight	Carton Dimensions (L x W x H) & Weight	Number of Kits/Carton
U500 Urine Analyzer	U211-101 <sup>†</sup>	1 Urine Analyzer 1 Strip Platform/Waste Tray 2 Printer Paper Rolls	2 Fuses (2.0A) 1 Power Cord 1 Instruction Manual	51.0 cm x 42.0 cm x 38.5 cm; 7 kg 20.1" X 16.5" x 15.2"; 246.9 oz	1
U500 Urine Analyzer with Barcode Reader	U211-111 <sup>†</sup>	1 Urine Analyzer 1 Strip Platform/Waste Tray 2 Printer Paper Rolls 1 Barcode Reader (RS232C)	2 Fuses (2.0A) 1 Power Cord 1 Serial Splitter Cable (RS232C) 1 Instruction Manual	55.0 cm x 55.0 cm x 55.0cm; 9.2 kg 21.7" x 21.7" x 21.7"; 324.5 oz	1
Barcode Reader	U221-111 <sup>†</sup>	1 Barcode Reader (RS232C)	1 Serial Splitter Cable (RS232C)	23.6 cm x 10.8 cm x 7.8 cm; 0.482 kg 9.3" x 4.3" x 3.1"; 17.0 oz	22
Printer Paper Rolls	U121-101	4 Printer Paper Rolls	Thermal Paper (0.06 m x 20 m): 200 results/roll	12.0 cm x 12.0 cm x 6.5 cm; 0.360 kg 4.7" x 4.7" x 2.6"; 12.7oz	50
			Sticker Paper (0.06 m x 9 m): 100 results/roll	63.0 cm x 37.0 cm x 30.0 cm; 19.4 kg 24.8" x 14.6" x 11.8"; 684.3 oz	
U500 Data Transfer Kit	U221-131 <sup>†</sup>	1 Data Transfer Cable (RS232C)	1 Package Insert	12.0 cm x 12.0 cm x 6.5 cm; 0.40 kg 4.7" x 4.7" x 2.6"; 14.1oz	8
				16.0 cm x 13.0 cm x 3.5 cm; 0.147kg 6.3" x 5.1" x 1.4"; 5.2 oz	

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† FDA 510(k) Cleared

# Urine Controls

## Reliable

- Use with *Mission*<sup>®</sup> and *Mission*<sup>®</sup> *Expert* Urinalysis Reagent Strips and Urine Analyzers for optimum quality control
- Validate urinalysis results and prevent procedure errors

## Quick and Convenient Testing

- Ensures accurate results for all parameters
- Obtain quick results in any setting
- Competitively priced

## Two Types of Urine Controls Available

### Liquid Urine Control

- Ready to use without dissolving in distilled water
- 24 months shelf life for unopened controls at 2-8°C
- Two Packaging Options
  - Dropper Tip Bottles
    - Dropper tip bottles provide efficient use of the control solution
    - Easily drop the control solution onto each reagent pad using the dropper tip bottle
    - Controls can be used up to 40 times within 30 days at room temperature
  - Diptubes
    - Diptube packaging allows for quick testing similar to using a urine specimen
    - Simply dip the strip into the control solution and read results
    - Controls can be used up to 20 times within 30 days at room temperature

### Dry Strip Urine Control

- Portable for use anywhere with no refrigeration required
- Dissolve the dry strip urine control in distilled water, dip urine strip in the control solution, then compare to color chart
- Each control solution can be used for up to 12 tests at 2-30°C within 8 hours for all parameters
- 24 months shelf life at 2-30°C for unopened controls

## Specifications

Features	Specifications		
Product Name	Liquid Urine Control	Liquid Diptube Urine Control	Dry Strip Urine Control
Test Parameters	LEU, NIT, URO, PRO, pH, BLO, SG, KET, BIL, GLU, ASC, ALB, CRE, CA (13)		
Solution Detection Levels	Level 1	Negative: LEU, NIT, URO, PRO, pH, BLO, SG, KET, BIL, GLU, ASC, ALB, CRE, CA	
	Level 2	Positive: LEU, NIT, URO, PRO, pH, BLO, SG, KET, BIL, GLU, ALB CRE, CA and Negative ASC	
Compatible Urine Strips	<i>Mission</i> <sup>®</sup> Urinalysis Reagent Strips, <i>Mission</i> <sup>®</sup> <i>Expert</i> Urinalysis Reagent Strips		
Reading Time/Stability	Refer to insert	Refer to insert	Refer to insert
Storage Temperature	2-8°C	2-8°C	2-30°C
Unopened Control Shelf Life	24 months	24 months	24 months
Opened Control Stability	30 days at 15-30°C or until the expiration date at 2-8°C	30 days at 15-30°C or until the expiration date at 2-8°C	2-30°C: 3 months for Dry Strip; 8 hours for Control Solution for all parameters
Maximum Tests per Unit	20 or 40 tests/bottle	20 tests/diptube	12 tests/control solution of 1 dry strip

## Ordering Information

Product Name	Catalog No.	Components	Kit Box Dimensions (LxWxH) & Weight	Carton Dimensions (LxWxH) & Weight	# Kits/Carton
Liquid Urine Control ✓X	U021-011	Level 1: 3 x 10 mL/bottle; Level 2: 3 x 10 mL/bottle	85 mm x 55 mm x 60 mm; 107 g	400 mm x 270 mm x 345 mm; 5.2 kg	198
		Level 1: 3 x 5 mL/bottle; Level 2: 3 x 5 mL/bottle	85 mm x 55 mm x 60 mm; 75 g	400 mm x 270 mm x 345 mm; 4.2 kg	198
		Level 1: 1 x 10 mL/bottle; Level 2: 1 x 10 mL/bottle	55 mm x 28 mm x 60 mm; 41 g	400 mm x 270 mm x 345 mm; 6.6 kg	228
		Level 1: 1 x 5 mL/bottle; Level 2: 1 x 5 mL/bottle	55 mm x 28 mm x 60 mm; 31 g	400 mm x 270 mm x 345 mm; 5.5 kg	228
Liquid Diptube Urine Control ✓X	U021-071	Level 1: 2 x 12 mL/diptube; Level 2: 2 x 12 mL/diptube	130 mm x 55 mm x 55 mm; 101 g	385 mm x 255 mm x 320 mm; 4.7 kg	30
		Level 1: 1 x 12 mL/diptube; Level 2: 1 x 12 mL/diptube	130 mm x 55 mm x 55 mm; 62 g	385 mm x 255 mm x 320 mm; 3.5 kg	30
Dry Strip Urine Control ✓X	U021-041	Level 1: 1 x 25 strips/canister; Level 2: 1 x 25 strips/canister	100 mm x 51 mm x 110 mm; 126 g	280 mm x 280 mm x 260 mm; 3.6 kg	24
		Level 1: 1 x 10 strips/canister; Level 2: 1 x 10 strips/canister	100 mm x 51 mm x 110 mm; 106 g	280 mm x 280 mm x 260 mm; 3.1 kg	24

✓ CE Marked for sale in the European Community 

X FDA 510(k) Cleared and CLIA Waived

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Please visit our website for details: [www.aconlabs.com](http://www.aconlabs.com)



# Mission® Urinalysis Reagent Strips (Urine)

## Package Insert

REF U031-011	REF U031-051	REF U031-091	English
REF U031-021	REF U031-061	REF U031-101	
REF U031-031	REF U031-071	REF U031-111	
REF U031-041	REF U031-081		

For rapid detection of multiple analytes in human urine.  
For *in vitro* diagnostic use only.

### INTENDED USE

The Urinalysis Reagent Strips (Urine) are firm plastic strips onto which several separate reagent areas are affixed. The test is for the qualitative and semi-quantitative detection of one or more of the following analytes in urine: Ascorbic acid, Glucose, Bilirubin, Ketone (Acetoacetic acid), Specific Gravity, Blood, pH, Protein, Urobilinogen, Nitrite and Leukocytes.

### SUMMARY

Urine undergoes many changes during states of disease or body dysfunction before blood composition is altered to a significant extent. Urinalysis is a useful procedure as an indicator of health or disease, and as such, is a part of routine health screening. The Urinalysis Reagent Strips (Urine) can be used in general evaluation of health, and aids in the diagnosis and monitoring of metabolic or systemic diseases that affect kidney function, endocrine disorders and diseases or disorders of the urinary tract.<sup>1,2</sup>

### PRINCIPLE AND EXPECTED VALUES

**Ascorbic acid:** This test involves decolorization of Tillmann's reagent. The presence of ascorbic acid causes the color of the test field to change from blue-green to orange. Patients with adequate diet may excrete 2-10 mg/dL daily. After ingesting large amounts of ascorbic acid, levels can be around 200 mg/dL.

**Glucose:** This test is based on the enzymatic reaction that occurs between glucose oxidase, peroxidase and chromogen. Glucose is first oxidized to produce gluconic acid and hydrogen peroxide in the presence of glucose oxidase. The hydrogen peroxide reacts with potassium iodide chromogen in the presence of peroxidase. The extent to which the chromogen is oxidized determines the color which is produced, ranging from green to brown. Glucose should not be detected in normal urine. Small amounts of glucose may be excreted by the kidney.<sup>3</sup> Glucose concentrations as low as 100 mg/dL may be considered abnormal if results are consistent.

**Bilirubin:** This test is based on azo-coupling reaction of bilirubin with diazotized dichloroaniline in a strongly acidic medium. Varying bilirubin levels will produce a pinkish-tan color proportional to its concentration in urine. In normal urine, no bilirubin is detectable by even the most sensitive methods. Even trace amounts of bilirubin require further investigation. Atypical results (colors different from the negative or positive color blocks shown on the color chart) may indicate that bilirubin-derived bile pigments are present in the urine specimen, and are possibly masking the bilirubin reaction.

**Ketone:** This test is based on ketones reacting with nitroprusside and acetoacetic acid to produce a color change ranging from light pink for negative results to a darker pink or purple color for positive results. Ketones are normally not present in urine. Detectable ketone levels may occur in urine during physiological stress conditions such as fasting, pregnancy and frequent strenuous exercise.<sup>4-6</sup> In starvation diets, or in other abnormal carbohydrate metabolism situations, ketones appear in the urine in excessively high concentration before serum ketones are elevated.<sup>7</sup>

**Specific Gravity:** This test is based on the apparent pKa change of certain pretreated polyelectrolytes in relation to ionic concentration. In the presence of an indicator, colors range from deep blue-green in urine of low ionic concentration to green and yellow-green in urine of increasing ionic concentration. Randomly collected urine may vary in specific gravity from 1.003-1.035.<sup>8</sup> Twenty-four hour urine from healthy adults with normal diets and fluid intake will have a specific gravity of 1.016-1.022.<sup>3</sup> In cases of severe renal damage, the specific gravity is fixed at 1.010, the value of the glomerular filtrate.

**Blood:** This test is based on the peroxidase-like activity of hemoglobin which catalyzes the reaction of diisopropylbenzene dihydroperoxide and 3,3',5,5'-tetramethylbenzidine. The resulting color ranges from orange to green to dark blue. Any green spots or green color development on the reagent area within 60 seconds is significant and the urine specimen should be examined further. Blood is often, but not invariably, found in the urine of menstruating females. The significance of a trace reading varies among patients and clinical judgment is required in these specimens.

**pH:** This test is based on a double indicator system which gives a broad range of colors covering the entire urinary pH range. Colors range from orange to yellow and green to blue. The expected range for normal urine specimens from newborns is pH 5-7.<sup>9</sup> The expected range for other normal urine specimens is pH 4.5-8, with an average result of pH 6.<sup>9</sup>

**Protein:** This reaction is based on the phenomenon known as the "protein error" of pH indicators where an indicator that is highly buffered will change color in the presence of proteins (anions) as the indicator releases hydrogen ions to the protein. At a constant pH, the development of any green color is due to the presence of protein. Colors range from yellow to yellow-green for negative results and green to green-blue for positive results. 1-14 mg/dL of protein may be excreted by a normal kidney.<sup>10</sup> A color matching any block greater than trace indicates significant proteinuria. Clinical judgment is required to evaluate the significance of trace results.

**Urobilinogen:** This test is based on a modified Ehrlich reaction between p-diethylaminobenzaldehyde and urobilinogen in strongly acidic medium to produce a pink color. Urobilinogen is one of the major compounds produced in heme synthesis and is a normal substance in urine. The expected range for normal urine with this test is 0.2-1.0 mg/dL (3.5-17 µmol/L).<sup>8</sup> A result of 2.0 mg/dL (35 µmol/L) may be of clinical significance, and the patient specimen should be further evaluated.

**Nitrite:** This test depends upon the conversion of nitrate to nitrite by the action of Gram negative bacteria in the urine. In an acidic medium, nitrite in the urine reacts with p-arsanilic acid to form a diazonium compound. The diazonium compound in turn couples with 1 N-(1-naphthyl) ethylenediamine to produce a pink color. Nitrite is not detectable in normal urine.<sup>9</sup> The nitrite area will be positive in some cases of infection, depending on how long the urine specimens were retained in the bladder prior to collection. Retrieval of positive cases with the nitrite test ranges from as low as 40% in cases where little bladder incubation occurred, to as high as approximately 80% in cases where bladder incubation took place for at least 4 hours.

**Leukocytes:** This test reveals the presence of granulocyte esterases. The esterases cleave a derivatized pyrazole amino acid ester to liberate derivatized hydroxy pyrazole. This pyrazole then reacts with a diazonium salt to produce a beige-pink to purple color. Normal urine specimens generally yield negative results. Trace results may be of questionable clinical significance. When trace results occur, it is recommended to retest using a fresh specimen from the same patient. Repeated trace and positive results are of clinical significance.

### REAGENTS AND PERFORMANCE CHARACTERISTICS

Based on the dry weight at the time of impregnation, the concentrations given may vary within manufacturing tolerances. The following table below indicates read times and performance characteristics for each parameter.

Reagent	Read Time	Composition	Description
Ascorbic Acid (ASC)	30 seconds	2,6-dichlorophenolindophenol; buffer and non-reactive ingredients	Detects ascorbic acid as low as 5-10 mg/dL (0.28-0.56 mmol/L).
Glucose (GLU)	30 seconds	glucose oxidase; peroxidase; potassium iodide; buffer; non-reactive ingredients	Detects glucose as low as 50-100 mg/dL (2.5-5 mmol/L).
Bilirubin (BIL)	30 seconds	2,4-dichloroaniline diazonium salt; buffer and non-reactive ingredients	Detects bilirubin as low as 0.4-1.0 mg/dL (6.8-17 µmol/L).
Ketone (KET)	40 seconds	sodium nitroprusside; buffer	Detects acetoacetic acid as low as 2.5-5 mg/dL (0.25-0.5 mmol/L).
Specific Gravity (SG)	45 seconds	bromthymol blue indicator; buffer and non-reactive ingredients; poly (methyl vinyl ether/maleic anhydride); sodium hydroxide	Determines urine specific gravity between 1.000 and 1.030. Results correlate with values obtained by refractive index method within ± 0.005.
Blood (BLO)	60 seconds	3,3',5,5'-tetramethylbenzidine (TMB); diisopropylbenzene dihydroperoxide; buffer and non-reactive ingredients	Detects free hemoglobin as low as 0.018-0.060 mg/dL or 5-10 Ery/µL in urine specimens with ascorbic acid content of < 50 mg/dL.
pH	60 seconds	methyl red sodium salt; bromthymol blue; non-reactive ingredients	Permits the quantitative differentiation of pH values within the range of 5-9.
Protein (PRO)	60 seconds	tetrabromophenol blue; buffer and non-reactive ingredients	Detects albumin as low as 7.5-15 mg/dL (0.075-0.15 g/L).
Urobilinogen (URO)	60 seconds	p-diethylaminobenzaldehyde; buffer and non-reactive ingredients	Detects urobilinogen as low as 0.2-1.0 mg/dL (3.5-17 µmol/L).
Nitrite (NIT)	60 seconds	p-arsanilic acid; N-(1-naphthyl) ethylenediamine; non-reactive ingredients	Detects sodium nitrite as low as 0.05-0.1 mg/dL in urine with a low specific gravity and less than 30 mg/dL ascorbic acid.
Leukocytes (LEU)	120 seconds	derivatized pyrrole amino acid ester; diazonium salt; buffer; non-reactive ingredients	Detects leukocytes as low as 9-15 white blood cells Leu/µL in clinical urine.

The performance characteristics of the Urinalysis Reagent Strips (Urine) have been determined in both laboratory and clinical tests. Parameters of importance to the user are sensitivity, specificity, accuracy and precision. Generally, this test has been developed to be specific for the parameters to be measured with the exceptions of the interferences listed. Please refer to the Limitations section in this package insert.

Interpretation of visual results is dependent on several factors: the variability of color perception, the presence or absence of inhibitory factors, and the lighting conditions when the strip is read. Each color block on the chart corresponds to a range of analyte concentrations.

### PRECAUTIONS

- For *in vitro* diagnostic use only. Do not use after the expiration date.
- The strip should remain in the closed canister until use.
- Do not touch the reagent areas of the strip.
- Discard any discolored strips that may have deteriorated.
- All specimens should be considered potentially hazardous and handled in the same manner as an infectious agent.
- The used strip should be discarded according to local regulations after testing.

### STORAGE AND STABILITY

Store as packaged in the closed canister either at room temperature or refrigerated (2-30°C). Keep out of direct sunlight. The strip is stable through the expiration date printed on the canister label. Do not remove the desiccant. Remove only enough strips for immediate use. Replace cap immediately and tightly. **DO NOT FREEZE.** Do not use beyond the expiration date.

Note: Once the canister has been opened, the remaining strips are stable for up to 3 months. Stability may be reduced in high humidity conditions.

### SPECIMEN COLLECTION AND PREPARATION

A urine specimen must be collected in a clean and dry container and tested as soon as possible. Do not centrifuge. The use of urine preservatives is not recommended. If testing cannot be done within an hour after voiding, refrigerate the specimen immediately and let it return to room temperature before testing.

Prolonged storage of unpreserved urine at room temperature may result in microbial proliferation with resultant changes in pH. A shift to alkaline pH may cause false positive results with the protein test area. Urine containing glucose may decrease in pH as organisms metabolize the glucose.

Contamination of the urine specimen with skin cleansers containing chlorhexidine may affect protein (and to a lesser extent, specific gravity and bilirubin) test results.

### MATERIALS

#### Materials Provided

- Strips
- Package insert

#### Materials Required But Not Provided

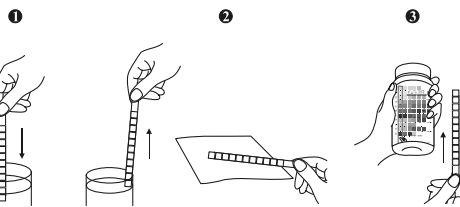
- Specimen collection container
- Timer

### DIRECTIONS FOR USE

**Allow the strip, urine specimen, and/or controls to reach room temperature (15-30°C) prior to testing.**

- Remove the strip from the closed canister and use it as soon as possible. Immediately close the canister tightly after removing the required number of strip(s). Completely immerse the reagent areas of the strip in fresh, well-mixed urine and immediately remove the strip to avoid dissolving the reagents. See illustration 1 below.
- While removing the strip from the urine, run the edge of the strip against the rim of the urine container to remove excess urine. Hold the strip in a horizontal position and bring the edge of the strip into contact with an absorbent material (e.g. a paper towel) to avoid mixing chemicals from adjacent reagent areas and/or soiling hands with urine. See illustration 2 below.
- Compare the reagent areas to the corresponding color blocks on the canister label at the specified times. Hold the strip close to the color blocks and match carefully. See illustration 3 below.

Note: Results may be read up to 2 minutes after the specified times.



### INTERPRETATION OF RESULTS

Results are obtained by direct comparison of the color blocks printed on the canister label. The color blocks represent nominal values; actual values will vary close to the nominal values. In the event of unexpected or questionable results, the following steps are recommended: confirm that the strips have been tested within the expiration date printed on the canister label, compare results with known positive and negative controls and repeat the test using a new strip. If the problem persists, discontinue using the strip immediately and contact your local distributor.

### QUALITY CONTROL

For best results, performance of reagent strips should be confirmed by testing known positive and negative specimens/controls whenever a new test is performed, or whenever a new canister is first opened. Each laboratory should establish its own goals for adequate standards of performance.

### LIMITATIONS

**Note:** The Urinalysis Reagent Strips (Urine) may be affected by substances that cause abnormal urine color such as drugs containing azo dyes (e.g. Pyridium®. Azo Gantrisin®, Azo Gantanol®), nitrofurantoin (Microdantin®, Furadantin®), and riboflavin.<sup>8</sup> The color development on the test pad may be masked or a color reaction may be produced that could be interpreted as false results.

**Ascorbic acid:** No interference is known.  
**Glucose:** The reagent area does not react with lactose, galactose, fructose or other metabolic substances, nor with reducing metabolites of drugs (e.g. salicylates and nalidixic acid). Sensitivity may be decreased in specimens with high specific gravity (>1.025) and with ascorbic acid concentrations of ≥ 25 mg/dL. High ketone levels ≥ 100 mg/dL may cause false negative results for specimens containing a small amount of glucose (50-100 mg/dL).

**Bilirubin:** Bilirubin is absent in normal urine, so any positive result, including a trace positive, indicates an underlying pathological condition and requires further investigation. Reactions may occur with urine containing large doses of chlorpromazine or rifampin that might be mistaken for positive bilirubin.<sup>9</sup> The presence of bilirubin-derived bile pigments may mask the bilirubin reaction. This phenomenon is characterized by color development on the test patch that does not correlate with the colors on the color chart. Large concentrations of ascorbic acid may decrease sensitivity.

**Ketone:** The test does not react with acetone or β-hydroxybutyrate.<sup>8</sup> Urine specimens of high pigment, and other substances containing sulfhydryl groups may occasionally give reactions up to and including trace (±).<sup>9</sup>

**Specific Gravity:** Ketoacidosis or protein higher than 300 mg/dL may cause elevated results. Results are not affected by non-ionic urine components such as glucose. If the urine has a pH of 7 or greater, add 0.005 to the specific gravity reading indicated on the color chart.

**Blood:** A uniform blue color indicates the presence of myoglobin, hemoglobin or hemolyzed erythrocytes.<sup>8</sup> Scattered or compacted blue spots indicate intact erythrocytes. To enhance accuracy, separate color scales are provided for hemoglobin and for erythrocytes. Positive results with this test are often seen with urine from menstruating females. It has been reported that urine of high pH reduces sensitivity, while moderate to

high concentration of ascorbic acid may inhibit color formation. Microbial peroxidase, associated with urinary tract infection, may cause a false positive reaction. The test is slightly more sensitive to free hemoglobin and myoglobin than to intact erythrocytes.

**pH:** If the procedure is not followed and excess urine remains on the strip, a phenomenon known as "runover" may occur, in which the acid buffer from the protein reagent will run onto the pH area, causing the pH result to appear artificially low. pH readings are not affected by variations in urinary buffer concentration.

**Protein:** Any green color indicates the presence of protein in the urine. This test is highly sensitive for albumin, and less sensitive to hemoglobin, globulin and mucoprotein.<sup>8</sup> A negative result does not rule out the presence of these other proteins. False positive results may be obtained with highly buffered or alkaline urine. Contamination of urine specimens with quaternary ammonium compounds or skin cleansers containing chlorhexidine may produce false positive results.<sup>8</sup> The urine specimens with high specific gravity may give false negative results.

**Urobilinogen:** All results lower than 1 mg/dL urobilinogen should be interpreted as normal. A negative result does not at any time preclude the absence of urobilinogen. The reagent area may react with interfering substances known to react with Ehrlich's reagent, such as p-aminosalicylic acid and sulfonamides.<sup>9</sup> False negative results may be obtained if formalin is present. The test cannot be used to detect porphobilinogen.

**Nitrite:** The test is specific for nitrite and will not react with any other substance normally excreted in urine. Any degree of uniform pink to red color should be interpreted as a positive result, suggesting the presence of nitrite. Color intensity is not proportional to the number of bacteria present in the urine specimen. Pink spots or pink edges should not be interpreted as a positive result. Comparing the reacted reagent area on a white background may aid in the detection of low nitrite levels, which might otherwise be missed. Ascorbic acid above 30 mg/dL may cause false negatives in urine containing less than 0.05 mg/dL nitrite ions. The sensitivity of this test is reduced for urine specimens with highly buffered alkaline urine or with high specific gravity. A negative result does not at any time preclude the possibility of bacteruria. Negative results may occur in urinary tract infections from organisms that do not contain reductase to convert nitrate to nitrite; when urine has not been retained in the bladder for a sufficient length of time (at least 4 hours) for reduction of nitrate to nitrite to occur; when receiving antibiotic therapy or when dietary nitrate is absent.

**Leukocytes:** The result should be read between 60-120 seconds to allow for complete color development. The intensity of the color that develops is proportional to the number of leukocytes present in the urine specimen. High specific gravity or elevated glucose concentrations (≥ 2,000 mg/dL) may cause test results to be artificially low. The presence of cephalixin, cephalothin, or high concentrations of oxalic acid may also cause test results to be artificially low. Tetracycline may cause decreased reactivity, and high levels of the drug may cause a false negative reaction. High urinary protein may diminish the intensity of the reaction color. This test will not react with erythrocytes or bacteria common in urine.<sup>8</sup>

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### Index of Symbols

	Consult instructions for use		Tests per kit		Manufacturer
	For <i>in vitro</i> diagnostic use only		Use by		Do not reuse
	Store between 2-30°C		Lot Number		Catalog #
	Authorized Representative				

**ACON Laboratories, Inc.**  
10125 Mesa Rim Road,  
San Diego, CA 92121, USA

**MDSS GmbH**  
Schiffgraben 41  
30175 Hannover, Germany



浙江东方基因生物制品股份有限公司  
Zhejiang Orient Gene Biotech Co.,LTD

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## STATEMENT

We, Zhejiang Orient Gene Biotech Co., Ltd , having a registered office at 3787#, East Yangguang Avenue, Dipu Street Anji 313300, Huzhou, Zhejiang, China assign SRL SANMEDICO having a registered office at A. Corobceanu street 7A, apt. 9, Chişinău MD-2012, Moldova, as non-exclusive authorized representative for Orient Gene Brand product in correspondence with the conditions of directive 98/79/EEC.

We declare that the company mentioned above is authorized to register, notify, renew or modify the registration of medical devices on the territory of the Republic of Moldova.

This Statement letter will be valid from Feb.21th,2023 to Feb.20th, 2024.

Zhejiang Orient Gene Biotech Co., Ltd

General Manager:

Date:2023/2/21



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地址：浙江省湖州市安吉县递铺镇阳光大道东段 3787 号  
Add: 3787#, East Yangguang Avenue, Dipu Street Anji 313300, Huzhou, Zhejiang, China  
电话 Tel:+86-572-5226111 传真 Fax: +86-572-5226222 邮编 P.C.:313300



# Certificate

No. Q5 092305 0001 Rev. 01

**Holder of Certificate:** **Zhejiang Orient Gene Biotech Co., Ltd.**  
3787#, East Yangguang Avenue, Dipu Street Anji  
313300 Huzhou, Zhejiang  
PEOPLE'S REPUBLIC OF CHINA

**Certification Mark:**



**Scope of Certificate:** **Design and Development, Production and Distribution of In Vitro Diagnostic Reagent and Instrument for the Detection of Drugs of Abuse, Fertility, Infectious Diseases, Oncology, Biochemistry, Cardiac Diseases, Allergic Disease based on Rapid Test, PCR and Liquid Biochip Method.**

The Certification Body of TÜV SÜD Product Service GmbH certifies that the company mentioned above has established and is maintaining a quality management system, which meets the requirements of the listed standard(s). All applicable requirements of the testing and certification regulation of TÜV SÜD Group have to be complied with. For details and certificate validity see: [www.tuvsud.com/ps-cert?q=cert:Q5 092305 0001 Rev. 01](http://www.tuvsud.com/ps-cert?q=cert:Q5_092305_0001_Rev.01)

**Report No.:** SH2198802

**Valid from:** 2022-04-11

**Valid until:** 2024-03-16

**Date,** 2022-04-11



Christoph Dicks

Head of Certification/Notified Body

# Certificate

No. Q5 092305 0001 Rev. 01

**Applied Standard(s):** EN ISO 13485:2016  
Medical devices - Quality management systems -  
Requirements for regulatory purposes  
(ISO 13485:2016)  
DIN EN ISO 13485:2016

**Facility(ies):** Zhejiang Orient Gene Biotech Co., Ltd.  
3787#, East Yangguang Avenue, Dipu Street Anji, 313300  
Huzhou, Zhejiang, PEOPLE'S REPUBLIC OF CHINA

See Scope of Certificate

ORGANIZED UNDER THE LAWS OF THE STATE OF TEXAS

NUMBER

9

PERCENT/UNITS



# HEALGEN SCIENTIFIC LIMITED LIABILITY COMPANY

This Certifies that Zhejiang Orient Gene Biotech Co., Ltd. is the owner of one hundred percent/unit(s) of the above Limited Liability Company transferable only on the books of the Company, subject to any restrictions set forth in State Law, the Formation Document or the Company Agreement, by the holder hereof in person or by duly authorized attorney upon surrender of this Certificate properly endorsed.

In Witness Whereof, the said Limited Liability Company has caused this Certificate to be signed by its duly authorized representative(s) and to be sealed with the Seal of the Company.

Dated 6.31.2016

Wangji Pan  
SECRETARY

\_\_\_\_\_  
PRESIDENT





浙江东方基因生物制品股份有限公司  
Zhejiang Orient Gene Biotech Co., LTD



CE-DOC-OG038  
Version 2.0

# EC Declaration of Conformity

In accordance with Directive 98/79/EC

**Legal Manufacturer:** *Zhejiang Orient Gene Biotech Co., Ltd*

**Legal Manufacturer Address:** *3787#, East Yangguang Avenue, Dipu Street, Anji 313300, Huzhou, Zhejiang, China*

Declares, that the products  
Product Name and Model(s)

Troponin I Rapid Test Cassette (Whole Blood/Serum/Plasma)	GDTRO-402a
Troponin I Rapid Test Cassette (Whole Blood/Serum/Plasma)	GDTRO-402b

Classification: *Other*  
Conformity assessment route: *Annex III (EC DECLARATION OF CONFORMITY)*

We, the Manufacturer, herewith declare with sole responsibility that our product/s mentioned above meet/s the provisions of the Directive 98/79/EC of the European Parliament and of the Council on In-Vitro Diagnostic Medical Devices.

We hereby explicitly appoint

**EC Representative's Name:** *Shanghai International Holding Corp. GmbH (Europe)*

**EC Representative's Address:** *Eiffestrasse 80, 20537 Hamburg, Germany*

to act as our European Authorized Representative as defined in the aforementioned Directive.

I, the undersigned, hereby declare that the medical devices specified above conform with the directive 98/79/EC on in vitro diagnostic medical devices and pertinent essential requirements

Date Signed: August 11, 2020

Name of authorized signatory: *Joyce Pang*  
Position held in the company: *Vice-President*



浙江东方基因生物制品股份有限公司  
Zhejiang Orient Gene Biotech Co., LTD



CE-DOC-OG106  
Version 1.0

# EC Declaration of Conformity

In accordance with Directive 98/79/EC

**Legal Manufacturer:** *Zhejiang Orient Gene Biotech Co., Ltd*

**Legal Manufacturer Address:** *3787#, East Yangguang Avenue, Dipu Street,  
Anji 313300, Huzhou, Zhejiang, China*

Declares, that the products  
Product Name and Model(s)

Procalcitonin Rapid Test Cassette (Whole Blood/Serum/Plasma)	GDPCT-402a
--	------------

Classification: *Other*  
Conformity assessment route: *Annex III (EC DECLARATION OF CONFORMITY)*

We, the Manufacturer, herewith declare with sole responsibility that our product/s mentioned above meet/s the provisions of the Directive 98/79/EC of the European Parliament and of the Council on In-Vitro Diagnostic Medical Devices.

We hereby explicitly appoint

**EC Representative's Name:** *Shanghai International Holding Corp. GmbH (Europe)*

**EC Representative's Address:** *Eiffestrasse 80, 20537 Hamburg, Germany*

to act as our European Authorized Representative as defined in the aforementioned Directive.

I, the undersigned, hereby declare that the medical devices specified above conform with the directive 98/79/EC on in vitro diagnostic medical devices and pertinent essential requirements

Date Signed: August 7, 2018

Name of authorized signatory: *Joyce Pang*  
Position held in the company: *Vice-President*

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CE-DOC-H003  
Ver.1.7

# EC Declaration of Conformity

In accordance with Directive 98/79/EC

**Legal Manufacturer:** Healgen Scientific Limited Liability Company

**Legal Manufacturer Address:** 3818 Fuqua Street, Houston, TX 77047, USA.

Declares, that the products  
Product Name and Model(s)

Orient Gene HCV Hepatitis C Virus Rapid Test (Serum/Plasma) (Cassette)	GCHCV-302a
Orient Gene HCV Hepatitis C Virus Rapid Test (Whole blood/Serum/Plasma)(Cassette)	GCHCV-402a

EDMA Code: 15 70 02 02

**Classification:** Annex II List A  
**Conformity assessment route:** Annex IV (Full Quality Assurance)

Compliance of the designated product with the Directive 98/79/EC has been assessed and certified by the Notified Body

**Notified Body:** TÜV SÜD Product Service GmbH

**Notified Body Address:** Munich Branch Ridlerstraße 65 80339 München Germany

**EC Certificate No.:** V1 092378 0004 Rev. 02 Valid until: 2025-05-26

**EC Design-Examination Certificate No.:** V7 092378 0009 Rev. 00 Valid until: 2025-05-26

It bears the mark

**CE 0123**

We, the Manufacturer, herewith declare with sole responsibility that our product/s mentioned above meet/s the provisions of the Directive 98/79/EC of the European Parliament and of the Council on In-Vitro Diagnostic Medical Devices.

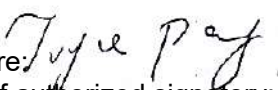
We hereby explicitly appoint

**EC Representative Name:** QARAD b.v.b.a.

**EC Representative Address:** Cipalstraat 3, B-2440 Geel, Belgium

to act as our European Authorized Representative as defined in the aforementioned Directive.

I, the undersigned, hereby declare that the medical devices specified above conform with the directive 98/79/EC on in vitro diagnostic medical devices and pertinent essential requirements

Signature:   
Name of authorized signatory: Joyce Pang  
Position held in the company: Vice-President  
Date: 2022.4.22



## Toxicology Urine Test



Product Description	Format	Cut-off Value	Qualification
Acetaminophen (ACE) Test	Strip/Cassette/Dip Card/Cup	5000 ng/mL	CE
Amphetamine (AMP) Test	Strip/Cassette/Dip Card/Cup	2000/1000/500/300/250 ng/mL	CE 510(k)
Barbiturates (BAR) Test	Strip/Cassette/Dip Card/Cup	2000/600/300/200 ng/mL	CE 510(k)
Benzodiazepines (BZO) Test	Strip/Cassette/Dip Card/Cup	600/400/300/200/100 ng/mL	CE 510(k)
Buprenorphine (BUP) Test	Strip/Cassette/Dip Card/Cup	10/5 ng/mL	CE 510(k)
Caffeine (CAF) Test	Strip/Cassette/Dip Card/Cup	6000 ng/mL	/
Carisoprodol (SOMA) Test	Strip/Cassette/Dip Card/Cup	1000 ng/mL	CE
Clonazepam (CLO) Test	Strip/Cassette/Dip Card/Cup	500/100 ng/mL	CE
Cocaine (COC) Test	Strip/Cassette/Dip Card/Cup	600/300/150/100 ng/mL	CE 510(k)
Codeine (COD) Test	Strip/Cassette/Dip Card/Cup	2000 ng/mL	CE
Cotinine (COT) Test	Strip/Cassette/Dip Card/Cup	400/300/200/100/50 ng/mL	CE
Ecstasy (MDMA) Test	Strip/Cassette/Dip Card/Cup	2000/1000/500/300/250/150 ng/mL	CE 510(k)
Ethyl Glucuronide (EtG) Test	Strip/Cassette/Dip Card/Cup	500/300ng/mL	CE
Fentanyl (FEN) Test	Strip/Cassette/Dip Card/Cup	300/200/100/50 ng/mL	CE
Norfentanyl (FEN) Test	Strip/Cassette/Dip Card/Cup	200/50/20/10/5 ng/mL	CE
Gabapentin (GAB) Test	Strip/Cassette/Dip Card/Cup	3750/2000/1000 ng/mL	CE
Hydrocodone (HCD) Test	Strip/Cassette/Dip Card/Cup	300/10 ng/mL	CE
Hydromorphone (HMO) Test	Strip/Cassette/Dip Card/Cup	300 ng/mL	CE
Ketamine (KET) Test	Strip/Cassette/Dip Card/Cup	3000/2000/1000/500/100 ng/mL	CE
Kratom (KRA) Test	Strip/Cassette/Dip Card/Cup	250/150/100 ng/mL	CE
Lysergic acid diethylamide (LSD) Test	Strip/Cassette/Dip Card/Cup	20 ng/mL	CE
Marijuana (THC) Test	Strip/Cassette/Dip Card/Cup	600/300/200/150/100/60/40/25/20/18/15 ng/mL	CE 510(k)
Methadone Metabolite (EDDP) Test	Strip/Cassette/Dip Card/Cup	300/100 ng/mL	CE 510(k)
Methadone (MTD) Test	Strip/Cassette/Dip Card/Cup	1000/600/300/200/50 ng/mL	CE 510(k)
Methamphetamine (MET) Test	Strip/Cassette/Dip Card/Cup	2000/1000/500/300/250 ng/mL	CE 510(k)
Methaqualone (MQL) Test	Strip/Cassette/Dip Card/Cup	300/1000 ng/mL	CE
Methcathinone (MTC) Test	Strip/Cassette/Dip Card/Cup	500/300 ng/mL	CE
3,4-Methylenedioxypropylvalerone (MDPV) Test	Strip/Cassette/Dip Card/Cup	1000/500/300 ng/mL	CE
Methylphenidate (MPH) Test	Strip/Cassette/Dip Card/Cup	300 ng/mL	CE
6-Monoacetylmorphine (6-MAM) Test	Strip/Cassette/Dip Card/Cup	20/10 ng/mL	CE
Morphine (MOP) Test	Strip/Cassette/Dip Card/Cup	2000/600/300/150/100 ng/mL	CE 510(k)
Opiate (OPI) Test	Strip/Cassette/Dip Card/Cup	2000/300/100 ng/mL	CE 510(k)
Oxycodone (OXY) Test	Strip/Cassette/Dip Card/Cup	300/100 ng/mL	CE 510(k)
Phencyclidine (PCP) Test	Strip/Cassette/Dip Card/Cup	50/25 ng/mL	CE 510(k)
Pinaca Ab (K3) Test	Strip/Cassette/Dip Card/Cup	10 ng/mL	CE
Pregabalin (PGB) Test	Strip/Cassette/Dip Card/Cup	2000/1000/500 ng/mL	CE
Propoxyphene (PPX) Test	Strip/Cassette/Dip Card/Cup	600/300 ng/mL	CE 510(k)
Synthetic Marijuana (K2) Test	Strip/Cassette/Dip Card/Cup	75/50/25/20/10 ng/mL	CE
Tramadol (TRA) Test	Strip/Cassette/Dip Card/Cup	200/100 ng/mL	CE
Tricyclic Antidepressants (TCA) Test	Strip/Cassette/Dip Card/Cup	1000/300 ng/mL	CE 510(k)
UR-144 Test	Strip/Cassette/Dip Card/Cup	50 ng/mL	CE
Zolpidem (ZOL) Test <sup>New</sup>	Strip/Cassette/Dip Card/Cup	50 ng/mL	/
Zopiclone (ZOP) Test <sup>New</sup>	Strip/Cassette/Dip Card/Cup	50 ng/mL	/
Alcohol (ALC) Test	Strip/Cassette/Dip Card/Cup	0.04%	CE

## Toxicology Saliva Test



Product Description	Format	Cut-off Value	Qualification
7-Aminoclonazepam (ACL) Test <sup>New</sup>	Device	100 ng/mL	/
Amphetamine (AMP) Test	Device	50/40 ng/mL	CE
Barbiturates (BAR) Test	Device	300/50/30 ng/mL	CE
Benzodiazepines (BZO) Test	Device	50/20/10 ng/mL	CE
Buprenorphine (BUP) Test	Device	10/5 ng/mL	CE
Carisoprodol (SOMA) Test	Device	300 ng/mL	/
Cocaine (COC) Test	Device	50/20 ng/mL	CE
Codeine (COD) Test	Device	10 ng/mL	CE
Cotinine (COT) Test	Device	50/30/10 ng/mL	CE
Diphenhydramine (DIP) Test <sup>New</sup>	Device	150/100 ng/mL	/
Ecstasy (MDMA) Test	Device	60/50 ng/mL	CE
Ethyl Glucuronide (EtG) Test <sup>New</sup>	Device	150/100 ng/mL	/
Fentanyl (FEN) Test	Device	10 ng/mL	CE
Hydrocodone (HCD) Test <sup>New</sup>	Device	10 ng/mL	/
Hydromorphone (HMO) Test <sup>New</sup>	Device	300/150 ng/mL	/
Ketamine (KET) Test	Device	100/50 ng/mL	CE
Lysergic acid diethylamide (LSD) Test	Device	25/10 ng/mL	CE
Marijuana (THC) Test	Device	50/40/30/25/15/12/10/5/4/3 ng/mL	CE
Methadone Metabolite (EDDP) Test	Device	20 ng/mL	CE
Mephedrone (MEP) Test <sup>New</sup>	Device	50 ng/mL	/
Methadone (MTD) Test	Device	75/50/30 ng/mL	CE

Methamphetamine (MET) Test	Device	50 ng/mL	CE
Methaqualone (MQL) Test	Device	150/100 ng/mL	CE
Methcathinone (MTC) Test	Device	50 ng/mL	/
3,4-Methylenedioxypropylvalerone (MDPV) Test	Device	200/100/50 ng/mL	CE
Methylphenidate (MPD) Test	Device	50 ng/mL	/
6-Monoacetylmorphine (6-MAM) Test	Device	25/15/10/5/4 ng/mL	CE
Morphine (MOP) Test	Device	15 ng/mL	CE
Opiate (OPI) Test	Device	50/40 ng/mL	CE
Oxycodone (OXY) Test	Device	50/40/20 ng/mL	CE
Phencyclidine (PCP) Test	Device	10 ng/mL	CE
Phenytol (PHEN) Test <sup>New</sup>	Device	150/100 ng/mL	/
Pinaca Ab (K3) Test <sup>New</sup>	Device	10 ng/mL	/
Pregabalin (PGB) Test <sup>New</sup>	Device	100 ng/mL	/
Propoxyphene (PPX) Test	Device	50/20 ng/mL	CE
Synthetic Marijuana (K2) Test	Device	25/10/5 ng/mL	CE
Tramadol (TRA) Test	Device	100/50 ng/mL	CE
Tricyclic Antidepressants (TCA) Test	Device	100 ng/mL	CE
XLR-11 Test <sup>New</sup>	Device	100 ng/mL	/
Zolpidem (ZOL) Test <sup>New</sup>	Device	25 ng/mL	/
Zopiclone (ZOP) Test <sup>New</sup>	Device	25 ng/mL	/
Alcohol (ALC) Test	Device	0.05/0.02%	CE

## Toxicology Hair Test



Product Description	Format	Label	Cut-off Value	Qualification
Amphetamine (AMP) Test	Cassette	Fluorescence Gold	0.5/0.2 ng/mg 5 ng/mg	CE /
Benzodiazepines (BZO) Test	Cassette	Fluorescence Gold	0.2 ng/mg 1 ng/mg	/ /
Cocaine (COC) Test	Cassette	Fluorescence Gold	0.5/0.2 ng/mg 5/2 ng/mg	CE CE
Ecstasy (MDMA) Test	Cassette	Fluorescence Gold	0.2 ng/mg 5 ng/mg	CE /
2-Fluorodeschloroketamin (FKE) Test	Cassette	Fluorescence	0.2 ng/mg	/
Ketamine (KET) Test	Cassette	Fluorescence Gold	0.2 ng/mg 2/1/0.5 ng/mg	CE CE
Marijuana (THC) Test	Cassette	Fluorescence Gold	0.05 ng/mg 2/1.5 ng/mg	CE CE
Methamphetamine (MET) Test	Cassette	Fluorescence Gold	0.5/0.2 ng/mg 5/2/1 ng/mg	CE CE
Methcathinone (MTC) Test	Cassette	Fluorescence	0.2 ng/mg	CE
6-Monoacetylmorphine (6-MAM) Test	Cassette	Fluorescence Gold	0.2 ng/mg 2 ng/mg	CE CE
Morphine (MOP) Test	Cassette	Fluorescence Gold	0.2 ng/mg 5/2/0.5 ng/mg	CE CE
Oxycodone (OXY) Test	Cassette	Fluorescence Gold	0.3 ng/mg 4 ng/mg	CE /
Phencyclidine (PCP) Test	Cassette	Fluorescence Gold	0.2 ng/mg 1 ng/mg	CE CE
Pinaca Ab (K3) Test	Cassette	Fluorescence Gold	0.2 ng/mg 0.5 ng/mg	CE /
Synthetic Marijuana (K2) Test	Cassette	Fluorescence Gold	0.2 ng/mg 1 ng/mg	CE /
Tramadol (TRA) Test	Cassette	Fluorescence	0.2 ng/mg	/
UR-144 Test	Cassette	Fluorescence	0.05 ng/mg	/

## Infectious Disease



Product Description	Specimen	Catalog No.	Format	Cut-off Value	Kit Size
Adenovirus Antigen Test	Swab	GCADE-502a/	Cassette	/	20 Tests/Kit
Adenovirus Test	Feces	GCADE-602a/	Cassette	/	20 Tests/Kit
Brucella Antibody Test	WB/S/P	GCBRU-402a/	Cassette	/	25 Tests/Kit
Candida albicans Test	Vaginal Secretion	GCCA-502a/	Cassette	10 <sup>6</sup> CFU/mL	20 Tests/Kit
Chagas Antibody Test	S/P	GCCHA-302a/	Cassette	/	25 Tests/Kit
	WB/S/P	GCCHA-402a/	Cassette	/	25 Tests/Kit
Clostridium difficile GDH Test	Feces	GCDD(GDH)-602a/	Cassette	2 ng/mL	20 Tests/Kit
Clostridium difficile Toxin A/B Test	Feces	GCDD(Toxin A/B)-602a/	Cassette	Toxin A: 2 ng/mL Toxin B: 2 ng/mL	20 Tests/Kit
Clostridium difficile GDH & Toxin A/B Combo Test	Feces	GCDD-625a/	Cassette	Toxin A: 2 ng/mL Toxin B: 2 ng/mL	20 Tests/Kit
Chikungunya IgM Test	S/P	GCCHK(IgM)-302a/	Cassette	/	25 Tests/Kit
	WB/S/P	GCCHK(IgM)-402a/	Cassette	/	25 Tests/Kit

Chikungunya IgG/IgM Test	WB/S/P	GCCHK(IgG/IgM)-402a	Cassette	/	25 Tests/Kit
Chlamydia Test	Swab/Urine	GCCHL-502a/	Cassette	4.8 x 10 <sup>3</sup> IFU/mL	20 Tests/Kit
CMV IgG Test	S/P	GCCMV(IgG)-302a	Cassette	/	25 Tests/Kit
	WB/S/P	GCCMV(IgG)-402a	Cassette	/	25 Tests/Kit
CMV IgM Test	S/P	GCCMV(IgM)-302a	Cassette	/	25 Tests/Kit
	WB/S/P	GCCMV(IgM)-402a	Cassette	/	25 Tests/Kit
CMV IgG/IgM Test	S/P	GCCMV(IgG/IgM)-302a	Cassette	/	25 Tests/Kit
	WB/S/P	GCCMV(IgG/IgM)-402a	Cassette	/	25 Tests/Kit
COVID-19 IgM/IgG Test	WB/S/P	GCCOV-402a/	Cassette	/	25 Tests/Kit
COVID-19 Neutralizing Antibody Test	WB/S/P	GCCOV(NAB)-402b/	Cassette	/	25 Tests/Kit
		GCCOV-502a/	Cassette	/	20 Tests/Kit
	Nasopharyngeal Swab	GCCOV-502Ca/	Cassette	/	20 Tests/Kit
		GCCOV-501a/ <sup>New</sup>	Strip	/	20 Tests/Kit
COVID-19 Antigen Test	Nasal Swab	GCCOV-502a-NA/	Cassette	/	1/2/3/5/7/10/15/20 Tests/Kit
		GCCOV-503a/ <sup>New</sup>	Device	/	1/2/5/10 Tests/Kit
	NA & NP Swab	GCCOV-502a-NN/	Cassette	/	20 Tests/Kit
	Oral Fluid	GCCOV-702a/	Cassette	/	20 Tests/Kit
		GCCOV-502a-Hxx/	Cassette	/	1/2/3/5/7/10/15/20 Tests/Kit
COVID-19 Antigen Self-Test	Nasal Swab	GCCOV-502a-HxxOGE/	Cassette	/	1/2/3/5/7/10/15/20/25 Tests/Kit
	Oral Fluid	GCCOV-702a-Hxx/ <sup>New</sup>	Cassette	/	1/2/3/5/7/10/15/20 Tests/Kit
Digital COVID-19 Antigen Test	Nasal Swab	GCCOV-D503a/ <sup>New</sup>	Reader	/	1/2/3/5/7/10/15/20 Tests/Kit
COVID-19 Antigen & B.1.1.7 Mutant Strain Combo Test	Nasal Swab	GCCOV(B117)-525a/	Cassette	/	20 Tests/Kit
COVID-19/Flu A&B/RSV Antigen Combo Test	Nasal Swab	GCFCR-T525a/	Cassette	/	20 Tests/Kit
SARS-CoV-2 Delta-series Mutant Strain Antigen Test	Nasal Swab	GCCOV(Del)-T502a/	Cassette	/	20 Tests/Kit
SARS-CoV-2 Ag Fluorescence Rapid Test	Nasal Swab	FCCOV-502a/ <sup>New</sup>	Cassette	/	20 Tests/Kit
Dengue IgG/IgM Antibody Test	WB/S/P	GCDEI(abi)-402c/	Cassette	/	25 Tests/Kit
Dengue NS 1 Antigen Test	WB/S/P	GCDEI(NS)-402c/	Cassette	/	25 Tests/Kit
Dengue NS1 & IgG/IgM Combo Test	WB/S/P	GCDEN-425a/	Cassette	/	20 Tests/Kit
EV71 IgM Test	S/P	GCEV71(IgM)-302a/	Cassette	/	25 Tests/Kit
	WB/S/P	GCEV71(IgM)-402a/	Cassette	/	25 Tests/Kit
Giardia lamblia Test	Feces	GCGLA-602a/	Cassette	/	20 Tests/Kit
Gonorrhoeae Test	Swab	GCGON-502b	Cassette	1.0E+7	20 Tests/Kit
HAV IgM Test	S/P	GCHAV(IgM)-302Ba/	Cassette	/	25 Tests/Kit
HAV IgG/IgM Test	WB/S/P	GCHAV(IgG/IgM)-402a/	Cassette	/	25 Tests/Kit
HAV Antigen Test	Feces	GCHAV-602a/	Cassette	/	25 Tests/Kit
	S/P	GCHBcb-302a	Cassette	2 NCU	25 Tests/Kit
	S/P	GCHBcb-302b	Cassette	8 NCU	25 Tests/Kit
HbCAb Hepatitis B Core Antibody Test	WB/S/P	GCHBcb-402a	Cassette	2 NCU	25 Tests/Kit
	S/P	GCHBcb-302a	Cassette	2 NCU	25 Tests/Kit
	S/P	GCHBcb-302b	Cassette	8 NCU	25 Tests/Kit
HBeAb Hepatitis B Envelope Antibody Test	WB/S/P	GCHBeb-402a	Cassette	2 NCU	25 Tests/Kit
	S/P	GCHBeb-302a	Cassette	2 NCU	25 Tests/Kit
HBeAg Hepatitis B Envelope Antigen Test	WB/S/P	GCHBeg-402a	Cassette	0.5 NCU	25 Tests/Kit
	S/P	GCHBsb-301a	Strip	30 mIU/mL	50 Tests/Kit
	S/P	GCHBsb-302a	Cassette	30 mIU/mL	25 Tests/Kit
	S/P	GCHBsb-401a	Strip	30 mIU/mL	50 Tests/Kit
	S/P	GCHBsb-402a	Cassette	30 mIU/mL	25 Tests/Kit
	S/P	GCHBsb-402b	Cassette	20 mIU/mL	25 Tests/Kit
	S/P	GCHBsg-301a	Strip	1 ng/mL	50 Tests/Kit
	S/P	GCHBsg-302a	Cassette	1 ng/mL	25 Tests/Kit
HBSAg Hepatitis B Surface Antigen Rapid Test	WB/S/P	GCHBsg-401a	Strip	1 ng/mL	50 Tests/Kit
	S/P	GCHBsg-402a	Cassette	1 ng/mL	25 Tests/Kit
HBSAg/HCV Combo Test	WB/S/P	GCHBC-402a	Cassette	/	25 Tests/Kit
HBSAg/HCV/HIV/Syphilis Combo Test	S/P	GCHBCISY-345a	Cassette	/	20 Tests/Kit
	WB/S/P	GCHBCISY-445a	Cassette	/	20 Tests/Kit
HBV HbCAb/HBeAb/HBeAg/HBsAb/HBsAg Combo Test	S/P	GCHBV-355a	Cassette	/	20 Tests/Kit
	WB/S/P	GCHBV-455a	Cassette	/	20 Tests/Kit
	S/P	GCHCV-301a	Strip	/	50 Tests/Kit
	WB/S/P	GCHCV-302a/	Cassette	/	25 Tests/Kit
	S/P	GCHCV-401a	Strip	/	50 Tests/Kit
	S/P	GCHCV-402a/	Cassette	/	25 Tests/Kit
HCV/HIV Combo Test	WB/S/P	GCHCI-402a	Cassette	/	25 Tests/Kit
HEV Hepatitis E Virus IgM Test	S/P	GCHVE-302a/	Cassette	/	25 Tests/Kit
	S/P	GCHIV-301a	Strip	/	50 Tests/Kit
	S/P	GCHIV-302a/	Cassette	/	25 Tests/Kit
HIV 1/2 Antibody Test	WB/S/P	GCHIV-401a	Strip	/	50 Tests/Kit
	WB/S/P	GCHIV-402a/	Cassette	/	25 Tests/Kit
HIV 1/2 Antibody Tri-line Test	WB/S/P	GCHIV-GT402a	Cassette	/	25 Tests/Kit
	S/P	GCHIV-T302b	Cassette		

## Fertility

Product Description	Specimen	Catalog No.	Format	Cut-off Value	Kit Size
hCG Pregnancy Test	Urine	GAHCG-101a/†	Strip	25 mIU/mL	100 Tests/Kit
		GAHCG-101b/	Strip	10 mIU/mL	100 Tests/Kit
		GAHCG-101d/	Strip	20 mIU/mL	100 Tests/Kit
		GAHCG-102a/†	Cassette	25 mIU/mL	25 Tests/Kit
		GAHCG-102b/	Cassette	10 mIU/mL	25 Tests/Kit
		GAHCG-102d/	Cassette	20 mIU/mL	25 Tests/Kit
		GAHCG-103a/†	Midstream	25 mIU/mL	1/2 Test(s)/Kit
		GAHCG-103b/	Midstream	10 mIU/mL	1/2 Test(s)/Kit
		GAHCG-103d/	Midstream	20 mIU/mL	1/2 Test(s)/Kit
		GAHCG-105a	Panel	25 mIU/mL	25 Tests/Kit
Digital Pregnancy Test	Urine	GAHCG-201a/	Strip	25 mIU/mL	100 Tests/Kit
		GAHCG-201b/	Strip	10 mIU/mL	100 Tests/Kit
		GAHCG-202a/	Cassette	25 mIU/mL	25 Tests/Kit
		GAHCG-202b/	Cassette	10 mIU/mL	25 Tests/Kit
LH Ovulation Test	Urine	GAHCG-D103a/	Midstream	25 mIU/mL	1/2 Test(s)/Kit
		GALH-101a/	Strip	25 mIU/mL	100 Tests/Kit
		GALH-101b/	Strip	40 mIU/mL	100 Tests/Kit
		GALH-101d	Strip	30 mIU/mL	100 Tests/Kit
		GALH-102a/	Cassette	25 mIU/mL	25 Tests/Kit
		GALH-102b/	Cassette	40 mIU/mL	25 Tests/Kit
		GALH-103a/	Midstream	25 mIU/mL	1/5 Test(s)/Kit
		GALH-103b/	Midstream	40 mIU/mL	1/5 Test(s)/Kit
FSH Menopause Test	Urine	GAHCG-103d	Midstream	30 mIU/mL	100 Tests/Kit
		GAFSH-101a/	Strip	25 mIU/mL	100 Tests/Kit
IGFBP-1 PROM Test	Cervical Secretion	GAIGF1-501a/	Strip	25 ng/mL	25 Tests/Kit
Male Fertility Test	Semen	GAIGF1-502a/	Cassette	25 ng/mL	20 Tests/Kit
		GASPE-902a/	Cassette	15M/mL	1 Test/Kit

## Cardiac Marker

Product Description	Specimen	Catalog No.	Format	Cut-off Value	Kit Size
CK-MB Test	S/P	GDCKM-302a/	Cassette	5 ng/mL	25 Tests/Kit
CRP C-Reactive Protein Semi-Quantitative Test	WB/S/P	GDCKM-402a/	Cassette	5 ng/mL	25 Tests/Kit
	WB/S/P	GDGRP-402a/	Cassette	1-3-10 mg/L	25 Tests/Kit
D-dimer Test	WB/P	GDGRP-T402b/	Cassette	10-40-80 mg/L	25 Tests/Kit
Myoglobin Test	WB/S/P	GDCCI-402b/	Cassette	500 ng/mL	25 Tests/Kit
Procalcitonin Test	WB/S/P	GDQYO-402a/	Cassette	50 ng/mL	25 Tests/Kit
Troponin I Test	S/P	GDPC-T402a/	Cassette	0.5-2-10 ng/mL	25 Tests/Kit
	WB/S/P	GDTR-302a/	Cassette	0.5 ng/mL	25 Tests/Kit
	WB/S/P	GDTR-402a/	Cassette	0.5 ng/mL	25 Tests/Kit
	WB/S/P	GDTR-402b/	Cassette	0.5 ng/mL	25 Tests/Kit
Cardiac Myoglobin/CK-MB/cTnI Combo Test	S/P	GDCAR-335a/	Cassette	50/5/0.5 ng/mL	25 Tests/Kit
	WB/S/P	GDCAR-435a/	Cassette	50/5/0.5 ng/mL	25 Tests/Kit
		GDCAR-W435a/	Cassette	50/5/0.5 ng/mL	20 Tests/Kit

## Urinalysis

Product Description	Specimen	Format	Cut-off Value	Kit Size
Ascorbate/†	Urine	Strip	0.5-0.6 mmol/L	100 Tests/Canister
Bilirubin/†	Urine	Strip	8.6-17 µmol/L	100 Tests/Canister
Blood/†	Urine	Strip	5-15 Ery/µL	100 Tests/Canister
Ca/	Urine	Strip	2.5 mmol/L	100 Tests/Canister
Creatinine/	Urine	Strip	50 mg/dL	100 Tests/Canister
Glucose/†	Urine	Strip	2.8-5.5 mmol/L	100 Tests/Canister
Ketone/†	Urine	Strip	0.5-1.0 mmol/L	100 Tests/Canister
Leukocytes/†	Urine	Strip	5-15 Leuko/µL	100 Tests/Canister
Micro Albumin/	Urine	Strip	0.08-0.15 mg/dL	100 Tests/Canister
Nitrite/†	Urine	Strip	13-22 µmol/L	100 Tests/Canister
pH/†	Urine	Strip	0.5	100 Tests/Canister
Protein/†	Urine	Strip	0.15-0.3 g/L	100 Tests/Canister
Specific Gravity/†	Urine	Strip	0.005	100 Tests/Canister
Urobilinogen/†	Urine	Strip	3.3-16 µmol/L	100 Tests/Canister
Urinary Tract Infection Test Strip	Urine	Strip	LEU: 10-15 Leuko/µL NIT: 13-22 µmol/L	3 Tests/Kit

## Tumor Marker

Product Description	Specimen	Catalog No.	Format	Cut-off Value	Kit Size
AFP Alpha Fetal Protein Test	S/P	GEAFP-301a	Strip	20 ng/mL	50 Tests/Kit
		GEAFP-302a/	Cassette	20 ng/mL	25 Tests/Kit
		GEAFP-401a/	Strip	20 ng/mL	50 Tests/Kit
		GEAFP-402a/	Cassette	20 ng/mL	25 Tests/Kit
CEA Carcinoembryonic Antigen Test	S/P	GECEA-301a	Strip	5 ng/mL	50 Tests/Kit
		GECEA-302a	Cassette	5 ng/mL	25 Tests/Kit
		GECEA-401a/	Strip	5 ng/mL	50 Tests/Kit
		GECEA-402a/	Cassette	5 ng/mL	25 Tests/Kit
		GEFOB-601b/†	Strip	50 ng/mL	25 Tests/Kit
		GEFOB-601Cb/	Strip	50 ng/mL	25 Tests/Kit
FOB Fecal Occult Blood Test	Feces	GEFOB-601c/	Strip	100 ng/mL	25 Tests/Kit
		GEFOB-601d	Strip	200 ng/mL	25 Tests/Kit
		GEFOB-602b/†	Cassette	50 ng/mL	20 Tests/Kit
		GEFOB-602Cb/	Cassette	50 ng/mL	20 Tests/Kit
		GEFOB-602c/	Cassette	100 ng/mL	20 Tests/Kit
		GEFOB-602d	Cassette	200 ng/mL	20 Tests/Kit
		GEFOB-602h	Cassette	150 ng/mL	20 Tests/Kit
		GEFOB-602j/	Cassette	10 ng/mL	20 Tests/Kit
FOB/Transferrin Combo Test	Feces	GEFOB/TF-602a/	Cassette	50/10 ng/mL	20 Tests/Kit
Nuclear Matrix Protein 22 Test	Urine	GENMP22-102a/ <sup>new</sup>	Cassette	10 U/mL	25 Tests/Kit
PSA Prostate Specific Antigen Test	S/P	GEPSA-301a/	Strip	4 ng/mL	50 Tests/Kit
	WB/S/P	GEPSA-302a/	Cassette	4 ng/mL	25 Tests/Kit
PSA Prostate Specific Antigen Semi-Quantitative Test	S/P	GEPSA-401a/	Strip	4 ng/mL	50 Tests/Kit
	WB/S/P	GEPSA-402a/	Cassette	4 ng/mL	25 Tests/Kit
PSA Prostate Specific Antigen	S/P	GEPSA-302b	Cassette	4 ng/mL, 10 ng/mL	25 Tests/Kit
	WB/S/P	GEPSA-402b	Cassette	4 ng/mL, 10 ng/mL	25 Tests/Kit
Transferrin Test	Feces	GETF-601a/	Strip	10 ng/mL	25 Tests/Kit
		GETF-602a/	Cassette	10 ng/mL	20 Tests/Kit

## Veterinary

Product Description	Specimen	Catalog No.	Format	Label	Cut-off Value	Kit Size
Canine Adenovirus (CAV) Antigen Test	Secretions	GFCAV-502a	Cassette	Gold	/	10 Tests/Kit
Canine Coronavirus (CCV) Antigen Test	Feces	GFCCV-602a	Cassette	Gold	/	10 Tests/Kit
		FFCCV-602a	Cassette	Fluorescence	10 IU	10 Tests/Kit
Canine Coronavirus (CCV) & Parvovirus (CPV) Antigen Combo Test	Feces	GFCCP-T602a	Cassette	Gold	/	10 Tests/Kit
Canine C-Reactive Protein (cCRP) Test	WB/S/P	FFCCR-402a	Cassette	Fluorescence	10 mg/L	10 Tests/Kit
Canine Distemper Virus (CDV) Antigen Test	Secretions	GFCDV-502a	Cassette	Gold	/	10 Tests/Kit
		FFCDV-502a	Cassette	Fluorescence	10 IU	10 Tests/Kit
Canine Distemper Virus (CDV), Influenza Virus (CIV) & Adenovirus (CAV) Antigen Combo Test	Secretions	GFCDIA-532a	Cassette	Gold	/	10 Tests/Kit
Canine Influenza Virus (CIV) Antigen Test	Secretions	GF CIV-502a	Cassette	Gold	/	10 Tests/Kit
Canine Parvovirus (CPV) Antigen Test	Feces	GFPCPV-602a	Cassette	Gold	/	10 Tests/Kit
Canine Progesterone (cProg) Test	WB/S/P	FFCPR-402a	Cassette	Fluorescence	15 ng/mL	10 Tests/Kit
Feline Calicivirus (FCV) Antigen Test	Secretions	GFCCV-502a	Cassette	Gold	/	10 Tests/Kit
Feline Coronavirus (FCoV) Antigen Test	Feces	GFCCO-602a	Cassette	Gold	/	10 Tests/Kit
Feline Herpes Virus (FHV) Antigen Test	Secretions	GFFHV-502a	Cassette	Gold	/	10 Tests/Kit
Feline Parvovirus (FPV) Antigen Test	Feces	FFFHV-502a	Cassette	Fluorescence	10 IU	10 Tests/Kit
		FFFPV-602a	Cassette	Gold	/	10 Tests/Kit
Feline Parvovirus (FPV) & Coronavirus (FCoV) Antigen Combo Test	Feces	FFFPV-602a	Cassette	Fluorescence	10 IU	10 Tests/Kit
Feline Parvovirus (FPV) & Coronavirus (FCoV) Antigen Combo Test	Feces	GFPPV-622a	Cassette	Gold	/	10 Tests/Kit
Feline Serum Amyloid A (ISA) Test	WB/S/P	FFSA-402a	Cassette	Fluorescence	5 mg/L	10 Tests/Kit
Toxoplasma (Toxo) IgG/IgM Test	WB/S/P	GFTOX-402a	Cassette	Gold	/	10 Tests/Kit

## Non-Infectious Disease

Product Description	Specimen	Catalog No.	Format	Cut-off Value	Kit Size
Micro-Albumin Test	Urine	GIHSA-101a/	Strip	20 µg/mL	100 Tests/Kit
Vaginal pH Test	Vaginal Secretion	GIHSA-102a	Cassette	20 µg/mL	25 Tests/Kit
		VPH-501a <sup>new</sup>	Strip	3.8-4.4	100 Tests/Canister

## Autoimmunity

Product Description	Specimen	Catalog No.	Format	Kit Size
Rheumatoid Factor IgM Test	S/P	GCRF(IgM)-302a	Cassette	25 Tests/Kit
Total IgE Test	S/P	GGIGE-302a	Cassette	25 Tests/Kit

## Instrument

Product Description	Model
Urine Analyzer	Healgen 500/
Urine Analyzer	Healgen 501/
Colloidal Gold Test Reader	OG-D180
Handheld Oral Fluid Drug Test Reader	OG-D200
Multi-Function Colloidal Gold Test Reader	OG-D600
Fluorescence Immunoassay Analyzer	OG-G200
Handheld Fluorescence Immunoassay Analyzer	OG-G300
Mini Immunofluorescence Analyzer	OG-H100/
Veterinary Fluorescence Immunoassay Analyzer	OG-V100

†CE Marked †Cleared for US 510(k) In Specimen column: WB: Whole Blood S: Serum P: Plasma



Zhejiang Orient Gene Biotech Co., Ltd was founded in December 2005 and listed on the SEE STAR Market on February 5, 2020 (securities code: 688298). Orient Gene specializes in R&D, production and sales of in vitro diagnostic products, mainly covering infectious diseases (including COVID-19 test series), toxicology, tumor markers, cardiac markers and fertility testing, etc. Through 16 years of technology accumulation and continuous investment in R&D, the Company has independently developed hundreds of products. The company own more than 200 authorized patents, and has obtained more than 500 product medical device certifications at home and abroad. The Company's sales network covers more than 100 countries, products are mainly sold to Europe, America and other developed countries.

Healgen Scientific LLC, a wholly owned subsidiary of Zhejiang Orient Gene Biotech Co., Ltd develops, manufactures and commercializes in vitro diagnostic test systems worldwide. Our product portfolio spans multiple testing categories and analytes to meet various clinical and laboratory needs.

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Rev.08/2022

# PRODUCT CATALOG

Enhancing  
Global Health



# HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma)

## INTENDED USE

The HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) is a sandwich lateral flow chromatographic immunoassay for the qualitative detection of antibodies (IgG, IgM, and IgA) anti- Hepatitis C virus (HCV) in human whole blood, serum or plasma. It is intended to be used as a screening test and as an aid in the diagnosis of infection with HCV. Any reactive specimen with the HCV Ab Rapid Cassette must be confirmed with alternative testing method(s) and clinical findings.

## INTRODUCTION

Hepatitis C Virus (HCV) is a small, enveloped, positive-sense, single-stranded RNA Virus. Antibody to HCV is found in over 80% of patients with well-documented non-A, non-B hepatitis. Conventional methods fail to isolate the virus in cell culture or visualize it by electron microscope. Cloning the viral genome has made it possible to develop serologic assays that use recombinant antigens<sup>(1, 2)</sup>. Compared to the first generation HCV EIAs using single recombinant antigen, multiple antigens using recombinant protein and/or synthetic peptides have been added in new serologic tests to avoid nonspecific cross-reactivity and to increase the sensitivity of the HCV antibody tests<sup>(3, 4)</sup>.

HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) is a rapid test to qualitatively detect the presence of antibody to HCV in a whole blood, serum or plasma specimen. The test utilizes a combination of recombinant antigen to selectively detect elevated levels of HCV antibodies in whole blood, serum or plasma.

## PRINCIPLE

The HCV Ab Rapid Test Cassette is a lateral flow chromatographic immunoassay based on the principle of the double antigen–sandwich technique. The test cassette consists of: 1) a burgundy colored conjugate pad containing HCV antigens conjugated with colloidal gold (HCV Ag conjugates) and rabbit IgG-gold conjugates, 2) a nitrocellulose membrane strip containing a test band (T band) and a control band (C band). The T band is pre-coated with non-conjugated HCV antigens, and the C band is pre-coated with goat anti-rabbit IgG. When an adequate volume of test specimen is dispensed into the sample well of the cassette, the specimen migrates by capillary action across the cassette. The antibodies: either the IgG, the IgM, or the IgA, to HCV if present in the specimen will bind to the HCV Ag conjugates. The immunocomplex is then captured on the membrane by the pre-coated HCV antigens, forming a burgundy colored T band, indicating a HCV Ab positive test result. Absence of the T band suggests a negative result. The test contains an internal control (C band) which should exhibit a burgundy colored band of the immunocomplex of goat anti-rabbit IgG/rabbit IgG-gold conjugate regardless the presence of any antibodies to HCV. Otherwise, the test result is invalid and the specimen must be retested with another device.

## PRODUCT CONTENTS

HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) containing HCV antigen coated particles and HCV antigen coated on the membrane.

## MATERIALS SUPPLIED

1. Test Strip 2. Pipette Dropper 3.Desiccant 4.Buffer 5.Package Insert

## MATERIAL REQUIRED BUT NOT PROVIDED

1.Specimen collection containers 2.Lancets (for fingerstick whole blood only)  
3.Centrifuge (for plasma only) 4.Timer  
5.Heparinized capillary tubes and dispensing bulb (for fingerstick whole blood only)

## STORAGE AND STABILITY

The kit can be stored at room temperature or refrigerated (2-30°C). The test device is stable through the expiration date printed on the sealed pouch. The test device must remain in the sealed pouch until use. DO NOT FREEZE. Do not use beyond the expiration date.

## WARNINGS AND PRECAUTIONS

1.For professional In Vitro diagnostic use only. Do not use after expiration date.  
2.Warning: the reagents in this kit contain sodium azide which may react with lead or copper plumbing to form potentially explosive metal azides. When disposing of such reagents, always flush with large volumes of water to

prevent azide build-up.

3. Do not use it if the tube/pouch is damaged or broken.

4.Test is for single use only. Do not re-use under any circumstances.

5.Handle all specimens as if they contain infectious agents.Observe established precautions against microbiological hazards throughout testing and follow the standard procedures for proper disposal of specimens.

6. Wear protective clothing such as laboratory coats, disposable gloves and eye protection when specimens are assayed.

7. Humidity and temperature can adversely affect results .

## SPECIMEN COLLECTION

1.The HCV Rapid Test Cassette (Whole Blood/Serum/Plasma) can be performed using whole blood (from venipuncture or fingerstick), serum or plasma.

2.To collect Fingerstick Whole Blood specimens:

•Wash the patient's hand with soap and warm water or clean with an alcohol swab. Allow to dry.

•Massage the hand without touching the puncture site by rubbing down the hand towards the fingertip of the middle or ring finger.

• Puncture the skin with a new sterile lancet for each person. Wipe away the first sign of blood.

• Gently rub the hand from wrist to palm to finger to form a rounded drop of blood over the puncture site.

• Add the Fingerstick Whole Blood specimen to the test device by using a capillary tube:

· Touch the end of the capillary tube to the blood until filled to approximately 50 µL. Avoid air bubbles.

· Place the bulb onto the top end of the capillary tube, then squeeze the bulb to dispense the whole blood into the specimen well (S) of the test device.

• Add the Fingerstick Whole Blood specimen to the test device by using hanging drops:

· Position the patient's finger so that the drop of blood is just above the specimen well (S) of the test device.

· Allow 2 hanging drops of fingerstick whole blood to fall into the center of specimen well (S) on the test device or, move the patient's finger so that the hanging drop touches the center of the specimen well (S). Avoid touching the finger directly to the specimen well (S).

3.Separate serum or plasma from blood as soon as possible to avoid hemolysis. Use only clear, non-hemolyzed specimens.

4.Testing should be performed immediately after specimen collection. Do not leave the specimens at room temperature for prolonged periods. Serum and plasma specimens may be stored at 2-8°C for up to 3 days. For long term storage, specimens should be kept below -20°C. Whole blood collected by venipuncture should be stored at 2-8°C if the test is to be run within 2 days of collection. Do not freeze whole blood specimens. Whole blood collected by fingerstick should be tested immediately.

5.Bring specimens to room temperature prior to testing. Frozen specimens must be completely thawed and mixed well prior to testing. Specimens should not be frozen and thawed repeatedly.

6.If specimens are to be shipped, they should be packed in compliance with local regulations covering the transportation of etiologic agents.

## TEST PROCEDURE

**Allow test device, specimen, buffer and/or controls to equilibrate to room temperature (15-30°C) prior to testing.**

1.Remove the test device from the foil pouch and use it as soon as possible. Best results will be obtained if the assay is performed within one hour.

2. Place the test device on a clean and level surface.

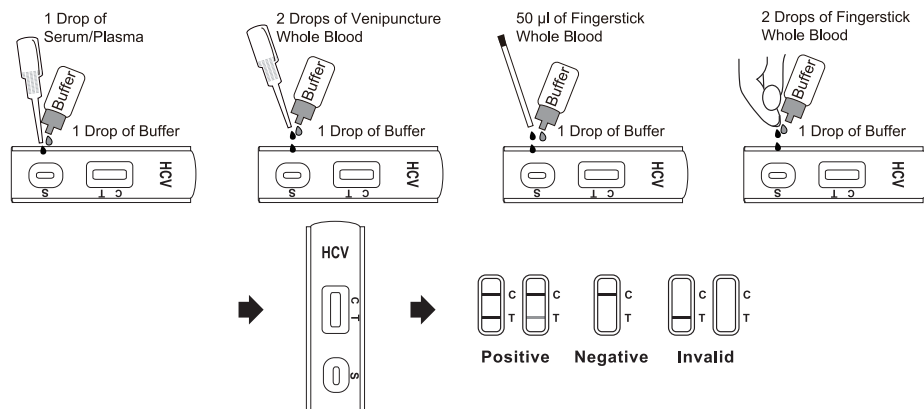
**For Serum or Plasma Specimens:** Hold the dropper vertically and transfer 1 drop of serum or plasma (approximately 30 µL) to the specimen well (S) of the test device, then add 1 drop of buffer (approximately 40 µL) and start the timer. See illustration below.

**For Venipuncture Whole Blood Specimens:** Hold the dropper vertically and transfer 2 drops of venipuncture whole blood (approximately 50µL) to the specimen well (S) of the test device, then add 1 drop of buffer (approximately 40 µL) and start the timer. See illustration below.

**For Fingerstick Whole Blood Specimens:** Allow 2 hanging drops of fingerstick whole blood (approximately 50 µ L) to fall into the center of the specimen well (S) on the test device, then add 1 drop of buffer (approximately 40 µ L) and start the timer. See illustration below.

# HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma)

3. Wait for the red line(s) to appear. The result should be read in 15 minutes. Do not interpret the result after 15 minutes.



## INTERPRETATION OF RESULTS

(please refer to the illustration above)

**Positive:** Two lines appear. One colored line should be in the control line region (C) and another apparent colored line should be in the test line region (T).

**Negative:** One colored line appears in the control line region (C). No line appears in the test line region (T).

**Invalid:** Control line fails to appear. Insufficient specimen volume or incorrect procedural techniques are the most likely reasons for control line failure. Review the procedure and repeat the test with a new test device. If the problem persists, discontinue using the test kit immediately and contact your local distributor.

## QUALITY CONTROL

A procedural control is included in the test. A red line appearing in the control region (C) is the internal procedural control. It confirms sufficient specimen volume and correct procedural technique. Control standards are not supplied with this test. However, it is recommended that positive and negative controls are sourced from a local competent authority and tested as a good laboratory practice, to confirm the test procedure and verify the test performance.

## LIMITATIONS

1. The HCV Ab Rapid Test Cassette (Whole Blood/ Serum/Plasma) is for in vitro diagnostic use only. This test should be used for the detection of antibodies to HCV in whole blood, serum or plasma specimen.
2. The HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) will only indicate the presence of antibodies to HCV in the specimen and should not be used as the sole criteria for the diagnosis of Hepatitis C viral infection.
3. As with all diagnostic tests, all results must be considered with other clinical information available to the physician.
4. If the test result is negative and clinical symptoms persist, additional follow-up testing using other clinical methods is recommended. A negative result at any time does not preclude the possibility of Hepatitis C Virus infection.
5. A negative result can occur if the quantity of the antibodies to HCV present in the specimen is below the detection limits of the assay, or the antibodies that are detected are not present during the stage of disease in which a sample is collected.
6. Some specimens containing unusually high titer of heterophile antibodies or rheumatoid factor may affect expected results.

## PERFORMANCE CHARACTERISTICS

**Sensitivity:** HCV Ab Rapid Test Cassette (Whole Blood/ Serum/Plasma) has passed a seroconversion panel and compared with leading commercial HCV EIA test using clinical specimens.

**Specificity:** The recombinant antigens used for HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) are encoded by genes for both structural (nucleocapsid) and non-structural proteins. HCV Ab Rapid Test Cassette (Whole Blood/Serum/Plasma) is highly specific for antibodies to Hepatitis C Virus compared with a leading

commercial HCV EIA test.

**The HCV Ab Rapid Test Cassette vs EIA test**

Method		EIA		Total Results
		Positive	Negative	
HCV Ab RapidTest	Results			
	Positive	105	19	124
	Negative	2	1760	1762
Total Results		107	1779	1886

Relative sensitivity: 98.1%

Relative specificity: 98.9%

Accuracy: 98.9%

## REFERENCE

1. Choo, Q.L., G.Kuo,A.J. Weiner, L.R. Overby,D.W. Bradley, andM. Houghton. Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome Science 189;244:359
2. Kuo, G., Q.L. Choo, H.J. Alter, and M. Houghton. An assay for circulating antibodies to a major etiolog Virus of human non-A, non-B hepatitis. Science 1989; 244:362.
3. Van der Poel, C.L., H.T.M. Cuyper, H.W. Reesink, and P.N. Lelie .Confirmation of hepatitis C Virus infection by new four- antigen recombinant immunoblot assay. Lancet 1991;337:317
4. Wilber, J.C.Development and use of laboratory tests for hepatitis C infection: a review.J. Clin. Immunoassy 1993;16:204.

# Troponin I

## Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) Package Insert

A rapid visual immunoassay for the qualitative presumptive detection of cardiac Troponin I in human whole blood, serum, or plasma specimens.  
For professional in vitro diagnostic use only.

### INTENDED USE

The Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) is a rapid visual immunoassay for the qualitative presumptive detection of cardiac Troponin I in human whole blood, serum, or plasma specimens. This kit is intended to be used as an aid in the diagnosis of myocardial infarction (MI).

### SUMMARY

Cardiac Troponin I (cTnI) is a protein found in cardiac muscle with a molecular weight of 22.5 kDa.<sup>1</sup> Troponin I is part of a three subunit complex comprising of Troponin T and Troponin C. Along with tropomyosin, this structural complex forms the main component that regulates the calcium sensitive ATPase activity of actomyosin in striated skeletal and cardiac muscle.<sup>2</sup> After cardiac injury occurs, Troponin I is released into the blood 4-6 hours after the onset of pain. The release pattern of cTnI is similar to CK-MB, but while CK-MB levels return to normal after 72 hours, Troponin I remains elevated for 6-10 days, thus providing for a longer window of detection for cardiac injury. The high specificity of cTnI measurements for the identification of myocardial damage has been demonstrated in conditions such as the perioperative period, after marathon runs, and blunt chest trauma.<sup>3</sup> cTnI release has also been documented in cardiac conditions other than acute myocardial infarction (AMI) such as unstable angina, congestive heart failure, and ischemic damage due to coronary artery bypass surgery.<sup>4</sup> Because of its high specificity and sensitivity in the myocardial tissue, Troponin I has recently become the most preferred biomarker for myocardial infarction.<sup>5</sup>

### PRINCIPLE

The Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) has been designed to detect cardiac Troponin I through visual interpretation of color development in the strip. The membrane was immobilized with anti-cTnI antibodies on the test region. During the test, the specimen is allowed to react with colored anti-cTnI antibodies colloidal gold conjugates, which were precoated on the sample pad of the test. The mixture then moves on the membrane by a capillary action, and interact with reagents on the membrane. If there were enough cTnI in specimens, a colored band will form at the test region of the membrane.

Presence of this colored band indicates a positive result, while its absence indicates a negative result. Appearance of a colored band at the control region serves as a procedural control. This indicates that proper volume of specimen has been added and membrane wicking has occurred.

### PRECAUTIONS

- For professional In Vitro diagnostic use only.
- Warning: the reagents in this kit contain sodium azide which may react with lead or copper plumbing to form potentially explosive metal azides. When disposing of such reagents, always flush with large volumes of water to prevent azide build-up.
- Do not use it if the tube/pouch is damaged or broken.
- Test is for single use only. Do not re-use under any circumstances.
- Handle all specimens as if they contain infectious agents. Observe established standard procedure for proper disposal of specimens
- Wear protective clothing such as laboratory coats, disposable gloves and eye protection when specimens are assayed.
- Humidity and temperature can adversely affect results

### STORAGE AND STABILITY

All reagents are ready to use as supplied. Store unused test device unopened at 2°C-30°C. If stored at 2°C-8°C, ensure that the test device is brought to room temperature before opening. The test is not stable out off the expiration date printed on the sealed pouch. Do not freeze the kit or expose the kit over 30°C.

### SPECIMEN COLLECTION AND PREPARATION

- The Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) is intended only for use with human whole blood, serum, or plasma specimens.
- Only clear, non-hemolyzed specimens are recommended for use with this test.
- Serum or plasma should be separated with soonest possible opportunity to avoid hemolysis.
- Perform the testing immediately after the specimen collection. Do not leave the specimens at room temperature for prolonged periods. Specimens may be stored at 2-8°C for up to 3 days. For long term storage, specimens should be kept below -20°C.
- Bring specimens to room temperature prior to testing. Frozen specimens must be completely thawed and mixed well prior to testing. Avoid repeated freezing and thawing of specimens.

- Pack the specimens in compliance with applicable regulations for transportation of etiological agents, in case they need to be shipped.
- Icteric, lipemic, hemolyzed, heat treated and contaminated sera may cause erroneous results.
- There is a slight possibility that some whole blood specimens with very high viscosity or which have been stored for more than 2 days may not run properly on the test device. Repeat the test with a serum or plasma specimen from the same patient using a new test device.

### MATERIALS

#### Materials Provided

- Test devices
- Buffer
- Disposable Droppers
- Package insert

#### Materials Required But Not Provided

- Specimen collection containers
- Centrifuge (for plasma only)
- Clock or Timer

### DIRECTIONS FOR USE

Allow test device, specimen, buffer and/or controls to equilibrate to room temperature (15-30°C) prior to testing.

- Remove the test from its sealed pouch, and place it on a clean, level surface. Label the device with patient or control identification. To obtain a best result, the assay should be performed within one hour.

- Transfer 2 drops of serum or plasma to the specimen well of the device with a disposable pipette provided in the kit, and then start the timer.

OR

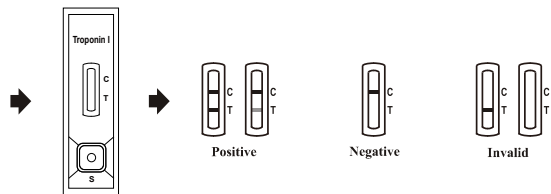
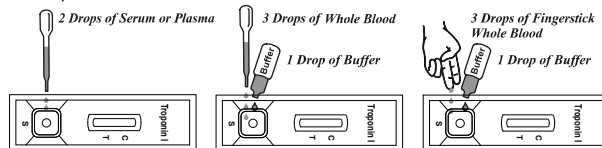
Transfer 3 drops of whole blood specimen to the specimen well of the device with a disposable pipette provided in the kit, then add 1 drop of buffer, and start the timer.

OR

Allow 3 hanging drops of fingerstick whole blood specimen to fall into the center of the specimen well (S) on the device, then add 1 drop of buffer, and start the timer. Avoid trapping air bubbles in the specimen well (S), and do not drop any solution in observation window.

As the test begins to work, you will see color move across the membrane.

- Wait for the colored band(s) to appear. The result should be read at 10 minutes. Do not interpret the result after 20 minutes.



### INTERPRETATION OF RESULTS

(Please refer to the illustration above)

**POSITIVE:** Two colored bands appear on the membrane. One band appears in the control region (C) and another band appears in the test region (T).

**NEGATIVE:** Only one colored band appears in the control region (C). No apparent colored band appears in the test region (T).

**INVALID:** Control band fails to appear. Results from any test which has not produced a control band at the specified reading time must be discarded.

Please review the procedure and repeat with a new test. If the problem persists, discontinue using the kit immediately and contact your local distributor.

#### NOTE:

- The intensity of the color in test region (T) may vary depending on the concentration of aimed substances present in the specimen. Therefore, any shade of color in the test region should be considered positive. Besides, the substances level can not be determined by this qualitative test.
- Insufficient specimen volume, incorrect operation procedure, or performing expired tests are the most likely reasons for control band failure.

### QUALITY CONTROL

Internal procedural controls are included in the test. A colored band appearing in the control region (C) is considered an internal positive procedural control. It confirms sufficient specimen volume and correct procedural technique.

External controls are not supplied with this kit. It is recommended that positive and negative controls be tested as a good laboratory practice to confirm the test procedure and to verify proper test performance.

### LIMITATIONS

- The Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) is for professional in vitro diagnostic use, and should be used for the qualitative detection of cardiac Troponin I only. There is no meaning attributed to linen color intensity or width.
- The Troponin I Rapid Test Device (Whole Blood/Serum/Plasma) will only indicate the presence of Troponin I in the specimen and should not be used as the sole criteria for the diagnosis of tuberculosis.
- If the test result is negative and clinical symptoms persist, additional testing using other clinical methods is recommended. The test cannot detect less than 0.5 ng/mL of cTnI in specimens. Thus, a negative result does not at anytime rule out the existence of Troponin I in blood, because the antibodies may be absent or below the minimum detection level of the test.
- Like with all diagnostic tests, a confirmed diagnosis should only be made by a physician after all clinical and laboratory findings have been evaluated.
- Some specimens containing unusually high titers of heterophile antibodies or rheumatoid factor (RF) may affect expected results. Even if the test results are positive, further clinical evaluation should be considered with other clinical information available to the physician.

### PERFORMANCE CHARACTERISTICS

Table: Troponin I Rapid Test vs. EIA

Method	Troponin I Rapid Test Device		Total Results	
	Results	Positive		Negative
EIA	Positive	138	2	140
	Negative	1	315	316
	Total Results	139	317	456

Relative Sensitivity: 98.6% (94.9%-99.8%)\*

Relative Specificity: 99.7% (98.3%-99.9%)\*

Overall Agreement: 99.3% (98.1%-99.9%)\*

\*95% Confidence Interval

### BIBLIOGRAPHY

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# Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma)



A rapid test for the Semi-Quantitative detection of Procalcitonin in whole blood, serum or plasma specimens.

For professional *in vitro* diagnostic use only.

## INTENDED USE

The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) is used for semi-quantitative determination and monitoring of PCT concentrations in whole blood/serum/plasma specimens.

## SUMMARY

The Procalcitonin (PCT) is a peptide hormone mainly produced by the C cells of the thyroid and certain endocrine cells of the lung. Under normal expression conditions, procalcitonin is immediately cleaved into three specific fragments, an N terminal residue, calcitonin and katecalcitonin. Levels of unprocessed procalcitonin rise significantly after bacterial infection, trauma or shock.

The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) is a rapid test that semi-quantitatively detects the presence of Procalcitonin in whole blood, plasma or serum specimens at the sensitivity of 0.5ng/mL, 2ng/mL and 10ng/mL. The test utilizes a combination of monoclonal antibodies to selectively detect elevated levels of Procalcitonin in whole blood, plasma or serum. At the level of claimed sensitivity, the Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) shows no cross-reactivity interference from the structurally related CRP or others at high physiological levels.

## PRINCIPLE

The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) detects Procalcitonin through visual interpretation of color development on the internal strip. Anti-PCT antibodies are immobilized on the test region of the membrane. During testing, the specimen reacts with anti-PCT antibodies conjugated to colored particles and precoated on the sample pad of the test. The mixture then migrates through the membrane by capillary action, and interacts with reagents on the membrane. If Test band 3 (T3) appears, it indicates that the PCT level in the specimen is between 0.5-2.0ng/ml. If the Test band 3 and 2 (T3 and T2) appear, it indicates that the PCT level in the specimen is between 2.0-10.0 ng/ml. If all the Test bands (T1, T2, T3), it indicates that the PCT level is above 10.0 ng/ml. The appearance of control line serves as a procedural control, indicating that the proper volume of specimen has been added and membrane wicking has occurred.

## REAGENT

The test contains anti-Procalcitonin particles and anti-Procalcitonin coated on the membrane.

## MATERIALS PROVIDED

- 25 Sealed pouches each containing a test cassette, a dropper and a desiccant
- 1 Buffer, 4.0 mL
- 1 Package insert

## MATERIALS REQUIRED BUT NOT PROVIDED

- 1. Specimen collection container
- 2. Timer
- 3. Centrifuge

## PRECAUTIONS

- For professional *in vitro* diagnostic use only.
- Do not use after the expiration date indicated on the package. Do not use the test if the foil pouch is damaged. Do not reuse tests.
- This kit contains products of animal origin. Certified knowledge of the origin and/or sanitary state of the animals does not completely guarantee the absence of transmissible pathogenic agents. It is therefore recommended that these products be treated as potentially infectious, and handled observing usual safety precautions (e.g., do not ingest or inhale).
- Avoid cross-contamination of specimens by using a new specimen collection container for each specimen obtained.
- Read the entire procedure carefully prior to any testing.
- Do not eat, drink or smoke in the area where the specimens and kits are handled. Handle all specimens as if they contain infectious agents. Observe established precautions against microbiological hazards throughout the procedure and follow standard procedures for proper disposal of specimens. Wear protective clothing such as laboratory coats, disposable gloves and eye protection when specimens are assayed.
- Do not interchange or mix reagents from different lots.
- Humidity and temperature can adversely affect results.
- Used testing materials should be discarded in accordance with local regulations.

## STORAGE AND STABILITY

- The kit should be stored at 2-30°C until the expiry date printed on the sealed pouch.
- The test must remain in the sealed pouch until use.

Do not freeze.

Care should be taken to protect the components of the kit from contamination. Do not use if there is evidence of microbial contamination or precipitation. Biological contamination of dispensing equipment, containers or reagents can lead to false results.

## SPECIMEN COLLECTION AND PREPARATION

- The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) can be performed using whole blood, serum or plasma.
- Separate serum or plasma from blood as soon as possible to avoid hemolysis. Use only clear, non-hemolyzed specimens.
- Testing should be performed immediately after specimen collection. Do not leave the specimens at room temperature for

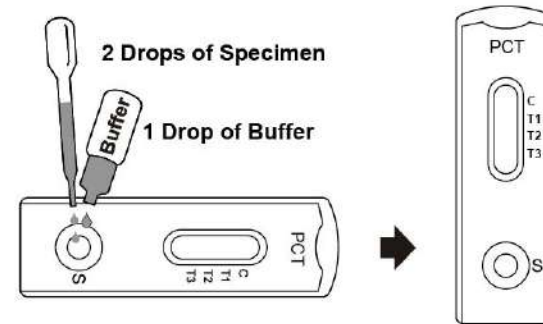
prolonged periods. Serum and plasma specimens may be stored at 2-8°C for up to 3 days. For long-term storage, specimens should be kept below -20°C. Whole blood collected by venipuncture should be stored at 2-8°C if the test is to be run within 2 days of collection. Do not freeze whole blood specimens.

- Bring specimens to room temperature prior to testing. Frozen specimens must be completely thawed and mixed well prior to testing. Specimens should not be frozen and thawed repeatedly.
- If specimens are to be shipped, they should be packed in compliance with local regulations covering the transportation of etiologic agents.

## DIRECTIONS FOR USE

Bring tests, specimens, buffer, and/or controls to room temperature (15-30°C) before use.

- Remove the test from its sealed pouch, and place it on a clean, level surface. Label the device with patient or control identification. For best results, the assay should be performed within one hour.
- Add **2 drops of specimen** above to the specimen well and then add **1 drop of buffer**, start the timer.
- Wait for the colored bands to appear. The result should be **read at 10 minutes**. Do not interpret the result after 20 minutes.



## INTERPRETATION OF RESULTS

### POSITIVE RESULT:

### Possible Interpretation of Procalcitonin Levels



A Control band (C) and a test band (T3) appears indicates a PCT level 0.5 mg/L at least.



A Control band (C) and two test bands (T3 and T2) appear indicates a PCT level 2.0 mg/L at least.



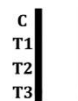
A Control band (C) and three test bands (T1, T2 and T3) appears indicates a PCT level 10.0 mg/L at least.

### NEGATIVE RESULT:



Only a Control band (C) appears and no colored band appears in the test region (T) indicates a PCT level is lower than 0.5 mg/L.

### INVALID RESULT:



No Control band appears. Results from any test which has not produced Control band at the specified read time must be discarded. Please review the procedure and repeat with a new test. If the problem persists, discontinue using the kit immediately and contact your local distributor.

**NOTE:**

- The intensity of the color in the test region (T) may vary depending on the concentration of analytes present in the specimen. Therefore, any shade of color in the test region should be considered positive. Please note that this is a semi-quantitative test only, and cannot determine the concentration of analytes in the specimen.
- Insufficient specimen volume, incorrect operating procedure or expired tests are the most likely reasons for control band failure.

**QUALITY CONTROL**

- Internal procedural controls are included in the test. Control band appearing in the control regions is considered an internal positive procedural control, confirming sufficient specimen volume and correct procedural technique.
- External controls are not supplied with this kit. It is recommended that positive and negative controls be tested as a good laboratory practice to confirm the test procedure and to verify proper test performance.

**LIMITATIONS**

- The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) is for professional *in vitro* diagnostic use, and should only be used for the semi-quantitative detection of Patent Cooperation Treaty.
- The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) will only indicate the semi-quantitative level of PCT in the specimen and should not be used as the sole criteria for evaluating inflammatory conditions.
- Like with all diagnostic tests, a confirmed diagnosis should only be made by a physician after all clinical and laboratory findings have been evaluated.
- PCT values near the cut-off level Test line 3 (T3: 0.5 ng/ml), Test line 2 (T2: 2.0 ng/ml), and Test line 1 (T1: 10.0 ng/ml) should be reported with caution as with all quantitative assays there exists some level of variation. Therefore, a T line with slightly higher intensity than T1 can also represent a value slightly below 10.0 ng/ml. Similar observations may occur with values near 2.0 ng/ml and 0.5 ng/ml. A repeat test or further quantitative test is recommended in such cases.

**EXPECTED VALUES**

The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) has been compared with a leading commercial Procalcitonin EIA test, demonstrating an overall accuracy of 98.9%.

**PERFORMANCE CHARACTERISTICS****Sensitivity and Specificity**

The Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) has been evaluated with a leading commercial Procalcitonin EIA test using clinical specimens. The results show that the sensitivity of the Procalcitonin Semi-Quantitative Rapid Test Cassette (Whole Blood/Serum/Plasma) is 98.8% and the specificity is 99.0% relative to the leading EIA test.

Procalcitonin Semi-Quantitative Rapid Test Cassette vs. EIA

Method	EIA Test		Total Results	
	Results	Positive		Negative
Semi-Quantitative Rapid Test Cassette	Positive	84	2	86
	Negative	1	193	194
	Total Results	85	195	280

Relative Sensitivity: 98.8%(93.6%-99.9%)\*

Relative Specificity: 99.0%(96.3%-99.9%)\*

Accuracy: 98.9%(96.9%-99.8%)\*

\*95% Confidence Interval

**LITERATURE REFERENCES**

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**INDEX OF SYMBOLS**

	Consult instructions for use		Tests per kit		Authorized Representative
	For <i>in vitro</i> diagnostic use only		Use by		Do not reuse
	Store between 2~30°C		Lot Number		Catalog#



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