CE Declaration of Conformity CE according to Directive 98/79/EC on in vitro diagnostic medical devices CE			
according to Directive 98/79/EC, on in vitro diagnostic medical devices			
Maker (Name, Address) Authorized Representative	Getein Biotech, Inc. No. 9 Bofu Road, Luhe District, Nanjing, 211505, China Lotus NL B.V.		
(Name, Address)	Koningin Julian	aplein 10, 1e Verd, 2595AA, The Hague, Netherlands.	
Medical device	Description	FIA8000 Quantitative Immunoassay Analyzer FIA8600 Quantitative Immunoassay Analyzer Cardiac Troponin I Fast Test Kit One Step Test for CTnl (Colloidal Gold) CTnl Rapid Test (Colloidal Gold Assay) One Step Test for NT-proBNP (Colloidal Gold) One Step Test for NT-proBNP/cTnl (Colloidal Gold) One Step Test for NT-proBNP/cTnl (Colloidal Gold) One Step Test for NT-proBNP/cTnl (Colloidal Gold) One Step Test for D-Dimer (Colloidal Gold) One Step Test for PCT (Colloidal Gold) One Step Test for PCT (Colloidal Gold) One Step Test for PCT (Colloidal Gold) One Step Test for NGAL (Colloidal Gold) One Step Test for CysC (Colloidal Gold) One Step Test for CysC (Colloidal Gold) One Step Test for CYCRP (Colloidal Gold) One Step Test for CYCRP (Colloidal Gold) One Step Test for CK-MB/cTnl/H-FABP (Colloidal Gold) One Step Test for CK-MB/cTnl (Colloidal Gold) One Step Test for CK-MB/CTnl (Colloidal Gold) One Step Test for TSH (Colloidal Gold) One Step Test for TA/T3 (Colloidal Gold) One Step Test for T3 (Colloidal Gold) One Step Test for T4 (Colloidal Gold) One Step Test for T4 (Colloidal Gold) One Step Test for T4 (Colloidal Gold) One Step Test for SA (Colloidal Gold) One Step Test for FA (Colloidal Gold) One Step Test for SA (	

大社用人

	PCT Fast Test Kit (Immunofluorescence Assay) β2-MG Fast Test Kit (Immunofluorescence Assa mAlb Fast Test Kit (Immunofluorescence Assay) NGAL Fast Test Kit (Immunofluorescence Assay) CysC Fast Test Kit (Immunofluorescence Assay) CK-MB Fast Test Kit (Immunofluorescence Assa CK-MB/cTnI Fast Test Kit (Immunofluorescence Assa CK-MB/cTnI Fast Test Kit (Immunofluorescence Assa HbA1c Fast Test Kit (Immunofluorescence Assa PCT/CRP Fast Test Kit (Immunofluorescence Assa CK-MB/cTnI/H-FABP Fast Test Kit (Immunofluorescence Assa CK-MB/cTnI/H-FABP Fast Test Kit (Immunofluorescence Assa CK-MB/cTnI/H-FABP Fast Test Kit (Immunofluorescence Assa 25-OH-VD Fast Test Kit (Immunofluorescence Assay) T3 Fast Test Kit (Immunofluorescence Assay) T3 Fast Test Kit (Immunofluorescence Assay) T4 Fast Test Kit (Immunofluorescence Assay) 25-OH-VD Fast Test Kit (Immunofluorescence Assay)	ay) () (y) (y) (ay)	
	SAA Fast Test Kit (Immunofluorescence Assay) LH Fast Test Kit (Immunofluorescence Assay) FSH Fast Test Kit (Immunofluorescence Assay) AMH Fast Test Kit (Immunofluorescence Assay) PRL Fast Test Kit (Immunofluorescence Assay)	)	
	CK-MB Control cTnl Control Myo Control NT-proBNP Control D-Dimer Control		
	CRP Control PCT Control β2-MG Control mAlb Control		有限之
	NGAL Control CysC Control H-FABP Control HbA1c Control HCG+β Control		THE REAL PROPERTY IN THE REAL PROPERTY INTO THE REAL PR
	CK-MB/cTnl/Myo Control CK-MB/cTnl Control NT-proBNP/cTnl Control TSH Control		
Classification c	T4/T3 Control T3 Control T4 Control of products according to directive :	: Others	
Batch/serial Nc	b. Type, production term (if applicable)	:	

ApplicableEN ISO 14971:2012EN ISO 23640:2015coordinationEN 13612:2002EN ISO15223-1:2012standards:EN 1041:2008EN ISO 18113-1:2011IEC 61010-1:2010IEC 61010-2-081:2015IEC 61326-1:2013IEC 61326-2-2:2013	EN ISO 13485:2016 EN ISO 18113-2:2011 EN ISO 18113-3:2011 IEC 61010-2-101:2015
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Signatory representative declares herein the above mentioned device meets the basic requirements of the European Parliament and the Council's in vitro diagnostic medical devices directive: 98/79/EC Annex III. This declaration of conformity is based on European Parliament and the Council's 98/79/EC directive Annex III. The compiled technical file and quality system document according to 98/79/EC directive Annex III are testified and the quality system certificate has issued by TÜV Rheinland (Shanghai) Co., Ltd.

General Manager: Enben Su

Nan Jing, Joth, Jul, 2019

(place and date of issue)

(name and signature onequivalent marking of authorized person)





No.9 Bofu Road, Luhe District, Nanjing, 211505, China Tel: +86-25-68569084 Fax: +86-25-68568500 E-mail: overseas@ getein.com.cn

### **Exclusive Distributor Agreement**

This agreement is made and entered into by and between the parties concerned on 1<sup>th</sup> Jan, 2022 in Nanjing, China on the basis of equality and mutual benefit to develop business on terms and conditions mutually agreed upon as follows:

### **1. The Parties Concerned**

Party A: Getein Biotech, Inc.

- Add: No.9 Bofu Road, Luhe District, Nanjing (211505) China.
- Tel: 86-25-68568519
- Fax: 86-25-68568500

Party B: Sanmedico SRL

- Add: Republic of Moldova, Chisinau, MD-2059, Petricani street, 88/1, office 10
- Tel: 373 22 62 30 32

### 2. Appointment

Party A hereby appoints Party B as its exclusive distributor in the Republic of Moldova for the promotion, sales, and after-sale services etc. of products (Refer to Item3) from Party A and Party B accepts and assumes such appointment.

### 3. Products List A

One Step Test for CK-MB/cTnI/Myo (Colloidal Gold)(Quantitative) Cardiac Troponin I Fast Test Kit(Colloidal Gold)(Quantitative) One Step Test for CK-MB (Colloidal Gold)(Quantitative) One Step Test for CK-MB/cTnI (Colloidal Gold)(Quantitative) One Step Test for H-FABP(Colloidal Gold)(Quantitative) One Step Test for NT-proBNP/cTnI(Colloidal Gold)(Quantitative) One Step Test for hs-CRP(Colloidal Gold)(Quantitative) One Step Test for D-Dimer(Colloidal Gold)(Quantitative) One Step Test for NT-proBNP(Colloidal Gold)(Quantitative) One Step Test for HbA1c(Colloidal Gold)(Quantitative) One Step Test for PCT(Colloidal Gold)(Quantitative) One Step Test for HCG(Colloidal Gold)(Quantitative) One Step Test for mAlb(Colloidal Gold)(Quantitative) One Step Test for  $\beta$ 2-MG(Colloidal Gold)(Quantitative) One Step Test for CysC(Colloidal Gold)(Quantitative) One Step Test for NAGL(Colloidal Gold)(Quantitative) One Step Test for TSH(Colloidal Gold)(Quantitative)

### GeteinBiotech Getein Biotech,Inc.

No.9 Bofu Road, Luhe District, Nanjing, 211505, China Tel: +86-25-68569084 Fax: +86-25-68568500 E-mail: overseas@ getein.com.cn

CK-MB/cTnI/Myo Fast Test Kit(Immunofluorescence Assay) Cardiac Troponin I Fast Test Kit(Immunofluorescence Assay) NT-proBNP/cTnI Fast Test Kit(Immunofluorescence Assay) hs-CRP Fast Test Kit(Immunofluorescence Assay) D-Dimer Fast Test Kit(Immunofluorescence Assay) NT-proBNP Fast Test Kit(Immunofluorescence Assay) PCT Fast Test Kit(Immunofluorescence Assay) mAlb Fast Test Kit(Immunofluorescence Assay) B2-MG Fast Test Kit(Immunofluorescence Assay) CysC Fast Test Kit(Immunofluorescence Assay) NAGL Fast Test Kit(Immunofluorescence Assay) HbA1c Fast Test Kit(Immunofluorescence Assay) TSH Fast Test Kit(Immunofluorescence Assay) T3 Fast Test Kit(Immunofluorescence Assay) T4 Fast Test Kit(Immunofluorescence Assay) PRL Fast Test Kit(Immunofluorescence Assay) LH Fast Test Kit(Immunofluorescence Assay) FSH Fast Test Kit(Immunofluorescence Assay) AMH Fast Test Kit(Immunofluorescence Assay) tPSA Fast Test Kit(Immunofluorescence Assay) 25-OH-VD Fast Test Kit(Immunofluorescence Assay) Getein 1100 Immunofluorescence Quantitative Analyzer Getein 1600 Immunofluorescence Quantitative Analyzer

### 4. Territory:

In Republic of Moldova only.

Meanwhile Party B will not distribute for competitive firms identical or similar products, nor will associate directly or indirectly with the competitive firms in the field of products covered by this agreement; otherwise, party A has the right to decide whether to terminate the contract immediately or not.

### 5. Prices

Prices are stable for 12 months from the start of this agreement. Party A will not increase the prices subjectively, unless the raw material suppliers increase their prices. In case price increases have to be announced, Party B has to be informed at least one month (30 days) in advance.

This agreement shall come into force from Jan 1st,2022to Jan 1st,2024, is valid for 24 months.

### 6.Delivery



No.9 Bofu Road, Luhe District, Nanjing, 211505, China Tel: +86-25-68569084 Fax: +86-25-68568500 E-mail: overseas@ getein.com.cn

Party A shall establish a delivery term for each Party B's order, which shall not exceed 4 weeks after the payment is received. Party A will advise Party B about the day of dispatching, with all requested information concerning the dispatched products.

### 7. FORCE MAJEURE

If the performance of any part of this agreement interfered with new laws or governmental restrictions, war, civil commotions, riots, strike lockout, acts of God such as flood, fire or any other similar causes which are beyond the control of the parties, no party shall be responsible for delay or failure of performance of this agreement for such length of time and to the extent performance is made impossible. In this case, the parties shall immediately negotiate to what extent deliveries that could not be executed can be carried out executed.

### 8.Payment Term

Every order Party B shall pay 50% by TT in advance, the rest of 50% will be paid within 30-60 days after the goods arrives. Due to financial audition, all the credit payment should be cleared by December 31th, 2022.

If Party B is unable to pay, Party B will agree to use fixed assets or real estate to offset the loan. Party A has the right to bring a lawsuit against Party B in China according to relevant Chinese laws.

### 9. Sales target

Yearly sales volume is 200,000 USD, which include both analyzers and strips. Party B agrees and accepts the sales volume...

### 10. Governing Law

The agreement is subject to the International Trade Law. Any dispute concerning this agreement shall be settled in accordance with the International Trade Law either through negotiation or through legal proceedings if negotiation has failed.

### **11.Declaration of Conformity.**

Getein Biotech,Inc. declares herein the above mentioned device (Refer to Item3) meets the basic requirements of the European Parliament and the Council's in vitro diagnostic medical devices directive: 98/79/EC Annex III.

This declaration of conformity is based on European Parliament and the Council's 98/79/EC directive Annex III. The compiled technical file and quality system document according to 98/79/EC directive Annex III are testified and the quality system certificate has issued by TÜV Rheinland (Shanghai) Co., Ltd.

### **12. Intellectual Property Agreement**

Party A reserves the right of goods design, drawing, plane graph specification, technology, data and information, technological process, the marketing plan of intellectual property rights which included the



No.9 Bofu Road, Luhe District, Nanjing, 211505, China Tel: +86-25-68569084 Fax: +86-25-68568500 E-mail: overseas@ getein.com.cn

Party A provide technical services to the Party B in the process of producing intellectual achievements . Without the Party A 's written consent, the Party B shall not disassemble the goods and the accompanying software, decoding, encoding, or any other reverse engineering by themselves or other third party.

### 13. Final Provisions

Attachments are an integral part of this contract, have the same legal effect with this contract; This contract was made in English with two originals, each party holds one, it is effective at the same time, and have the same legal effect.

Any change, modification, cancellation of this contract, to be replaced shall be made after agreed by both parties in writing.

Party A: Getein Biotech,Inc. Date: Represented by: Steven Zhou Regional Sales Manager Party B: Sanmedico SRL Date: Represented by: Vitalie Goreacii Director







### Certificate of Registration

**OUALITY MANAGEMENT SYSTEM - ISO 13485:2016** 

This is to certify that:

Getein Biotech, Inc. No.9 Bofu Road Luhe District Nanjing Jiangsu 211505 China

基蛋生物科技股份有限公司 中国 江苏省 南京市 六合区 沿江工业开发区 博富路9号 邮编: 211505

Holds Certificate No: MD 728432

and operates a Quality Management System which complies with the requirements of ISO 13485:2016 for the following scope:

> Design & Development, Manufacture and Distribution of Chemiluminescence Immunoassay, Biochemistry Assay, Point of Care Assay (including Colloidal Gold Assay, Immunofluorescence Assay, Dry Chemistry Assay). Design & Development, Manufacture and Distribution of Analyzers in use of Chemiluminescence Immunoassay, Biochemistry Assay, Point of Care Assay (including Colloidal Gold Assay, Immunofluorescence Assay, Dry Chemistry Assay). 研发,生产和销售化学发光法试剂,生化试剂,即时诊断(包括胶体金法,免疫荧光法,干式化 学法)试剂。

研发,生产和销售用于化学发光法试剂,生化试剂,即时诊断(包括胶体金法,免疫荧光法, 干式化学法)试剂配套使用的分析仪。

jang Conada

For and on behalf of BSI:

Gary E Slack, Senior Vice President - Medical Devices

Original Registration Date: 2020-05-29 Latest Revision Date: 2020-07-22

Effective Date: 2020-07-26 Expiry Date: 2023-07-25

Page: 1 of 1



...making excellence a habit."

This certificate was issued electronically and remains the property of BSI and is bound by the conditions of contract. An electronic certificate can be authenticated online.

Printed copies can be validated at www.bsi-global.com/ClientDirectory or telephone +86 10 8507 3000.

Information and Contact: BSI, John M. Keynesplein 9, 1066 EP Amsterdam The Netherlands. Tel: +31 (0) 20 3460 780 BSI Group The Netherlands B.V., registered in the Netherlands under number 33264284, at John M. Keynesplein 9, 1066 EP Amsterdam, The Netherlands A Member of the BSI Group of Companies.

Issued by 07/26/2019

### CERTIFICATE



hereby certifies

Mr. Vitalie Goreacii

from Sanmedico SRL.

Completion of Getein Products Technical and Operational Training & Qualification of After-sales Service

> 基蛋生物科技股份有限公司 GETEIN BIOTECH, INC.





### Cardiac Troponin I Fast Test Kit

User Manual

### Cat.# CG1001

CE IVD

### **INTENDED USE**

Cardiac Troponin I Fast Test Kit is intended for *in vitro* quantitative determination of cardiac Troponin I (cTnl) in serum, plasma or whole blood. This test is used as an aid in the diagnosis of myocardial injury such as Acute Myocardial Infarction (AMI), Unstable Angina, Acute Myocarditis and Acute Coronary Syndrome (ACS).

### SUMMARY

Troponin, a molecular complex that is bound to the thin filament (actin) of striated muscle fibers, acts with intracellular calcium to control the interaction of the thin filament with the thick filament (myosin), thus regulating muscle contraction. Troponin complex and tropomyosin (another cardiac muscle regulatory protein); I, which prevents muscle contraction in the absence of calcium; and C, which binds calcium. Cardiac Troponin I (MW 22.5 kDa) and the two skeletal muscle isoforms of Troponin I have considerable amino acid sequence homology, but cTnI contains an additional N-terminal sequence and is highly specific for myocardium.

Clinical studies have demonstrated the release of cTnI into the blood stream within hours following acute myocardial infarctions (AMI) or ischemic damage. Elevated levels of cTnI are detectable in blood within 4 to 6 hours after the onset of chest pain, reaching peak concentrations in approximately 8 to 28 hours, and remain elevated for 3 to 10 days following AMI. Due to the high myocardial specificity and the long duration of elevation, cTnI has become an important marker in the diagnosis and evaluation of patients suspected of having an AMI.

The current guideline of The Joint European Society of

Cardiology/American College of Cardiology Committee support the use of cTnI as a preferred marker of myocardial injury. Several major studies have shown that cTnI is also a predictor of cardiac risk in patients with unstable angina. The American College of Cardiology and the American Heart Association's current guidelines recommend using troponin results when making treatment decisions regarding unstable angina and non-ST segment elevation MI (NSTEMI).

### PRINCIPLE

The test uses an anti-human cTnI monoclonal antibody conjugated with colloidal gold and another anti-human cTnI monoclonal antibody coated on the test line. After the sample has been applied to the test strip, the gold-labelled anti-human cTnI monoclonal antibody binds with the cTnI in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human cTnI monoclonal antibody resulting in a purplish red streak appears on the test line. The color intensity of the test line increases in proportion to the amount of cTnI in sample.

Then insert test card into FIA8000 Quantitative Immunoassay Analyzer (hereinafter referred to as FIA8000), the concentration of cTnI in sample will be measured and displayed on the screen. The value will be stored in FIA8000 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

### A kit contains:

1. Getein cTnI test card in a sealed pouch with desiccant

	25
2. Disposable pipet ······	25
3. User manual ······	1
4. SD card ······	1
5. Whole blood buffer ······	1
A test card consists of	

A plastic shell and a reagent strip which is composed of a sample pad, a colloid gold pad (coated with gold-labelled anti-human cTnI monoclonal antibody), nitrocellulose membrane (the test line is coated with anti-human cTnI monoclonal antibody, and the control line is coated with rabbit

anti-mouse IgG antibody), absorbent paper and liner. Whole blood buffer composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

Note: Do not mix or interchange different batches of kits.

### **APPLICABLE DEVICE**

FIA8000 Quantitative Immunoassay Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened. Store the whole blood buffer at  $0 \sim 30^{\circ}$ C with a valid period of 24 months.

Store the whole blood buffer at 2~8°C for better results.

### PRECAUTIONS

- 1. For *in vitro* diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for serum, plasma and whole blood samples. Heparin and sodium citrate can be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using serum or plasma for better results.
- Serum or plasma can be used directly. For whole blood sample, one drop of whole blood buffer must be added before testing.
- If testing will be delayed, serum and plasma samples may be stored up to 7 days at 2~8°C or stored at -20°C for 6

months before testing (whole blood sample may be stored up to 3 days at  $2-8^{\circ}$ C).

- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 6. Do not use heat-inactivated samples.
- 7. SAMPLE VOLUME: 120 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.
- Confirm SD card lot No. in accordance with test kit lot No.. Perform "QC (SD)" calibration when necessary (Details refer to 8.2.1 of FIA8000 User Manual).
- 4. On the main interface of FIA8000, press "ENT" button to enter testing interface.
- Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 120  $\mu$ I of sample (or 4 drops of sample when using disposable pipet) into the sample port on the test card (for whole blood sample, one drop of whole blood buffer must be added after loading 120  $\mu$ I sample on the test card).
- Reaction time: 15 minutes. Insert the test card into FIA8000 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### Notes:

- 1. It is required to perform "QC (SD)" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits.
- 3. Make sure the test card insertion is correct and complete.

### **TEST RESULTS**

Valid: When a purplish-red band appears at the control area (C), use FIA8000 to analyze the test card and get the result. Invalid: If no colored band appears in the control area (C), the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### **EXPECTED VALUE**

The expected normal value for cTnI was determined by testing samples from 500 apparently healthy individuals. The 99<sup>th</sup> percentile of the concentration for cTnI is 0.5 ng/ml. (The probability that value of a normal person below 0.5 ng/ml is 99%.) It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	0.5~50.0 ng/ml
Lower Detection Limit	≤ 0.5 ng/ml
Within-Run Precision (n=10)	≤10%
Between-Run Precision	≤15%
Recovery	95% (mean)

### Method Comparison:

The assay was compared with SIEMENS IMMULITE 2000 and its matching cTnI test kits with 200 serum samples (60 positive samples and 140 negative samples). The correlation coefficient (r) for cTnI is 0.952.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	10 g/L	0.2 g/L

### REFERENCES

- Mauro Pantaghini; Undefined International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). Scientific Division Committee on Standardization of Markers of Cardiac Damage. Clin Chem Lab Med, 1998, 36:887~893.
- Antman EM, Anbe DT, Armstrong PW, et al. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of

Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines for the Manage 2004).

- EN ISO 18113-1:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: *In vitro* diagnostic reagents for professional use (ISO 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on Cardiac Troponin I Fast Test Kit are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

Key to symbols used					
<b>***</b>	Manufacturer		Expiration date		
8	Do not reuse	M	Date of manufacture		
Ĩ	Consult instructions for use	LOT	Batch code		
1	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device		
$\overline{\mathbb{V}}$	Sufficient for	EC REP	Authorized representative in the European Community		
CE	CE mark	8	Do not use if package is damaged		

Thank you for purchasing Cardiac Troponin I Fast Test Kit. Please read this user manual carefully before operating to ensure proper use.

Version: WCG02-DL-S-01

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overseas@getein.com.cn
Website: www.bio-GP.com.cn



### One Step Test for **D-Dimer**

(Colloidal Gold)

User Manual

### **IINTENDED USE**

One Step Test for D-Dimer (Colloidal Gold) is intended for *in vitro* quantitative determination of D-Dimer in plasma or whole blood. The test is used as an aid in the assessment and evaluation of patients suspected of deep-vein thrombosis or pulmonary embolism.

### SUMMARY

Deep-vein thrombosis is a common condition, with a lifetime cumulative incidence of 2 to 5 percent. Untreated deep-vein thrombosis can result in pulmonary embolism, a potentially fatal outcome. Anticoagulant therapy reduces both morbidity and mortality from venous thromboembolism, and early diagnosis is therefore important. Accurate diagnosis of deep-vein thrombosis minimizes the risk of thromboembolic complications and averts the exposure of patients without thrombosis to the risks of anticoagulant therapy.

D-Dimer is a marker of endogenous fibrinolysis and should therefore be detectable in patients with deep-vein thrombosis. In recent years, an increasing number of studies have shown the D-Dimer assay has a high negative predictive value and D-Dimer is a sensitive but nonspecific marker of deep-vein thrombosis. Negative D-Dimer can exclude deep-vein thrombosis and pulmonary embolism.

### PRINCIPLE

The test uses an anti-human D-Dimer monoclonal antibody conjugated with colloidal gold and another anti-human D-Dimer monoclonal antibody coated on the test line. After the

sample has been applied to the test strip, the gold-labelled anti-human D-Dimer monoclonal antibody binds with the D-Dimer in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human D-Dimer monoclonal antibody resulting in a purplish red streak appears on the test line. The color intensity of the test line increases in proportion to the amount of D-Dimer in sample.

Then insert test card into FIA8000 Quantitative Immunoassay Analyzer (hereinafter referred to as FIA8000), the concentration of D-Dimer in sample will be measured and displayed on the screen. The value will be stored in FIA8000 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

### A kit contains:

1. Getein D-Dimer test card in a sealed pouch with desiccant
25
2. Disposable pipet ······ 25
3. User manual ······ 1
4. SD card
5. Sample diluent ····· 25

### A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, a colloidal gold pad (coated with a gold-labelled anti-human D-Dimer monoclonal antibody), nitrocellulose membrane (the test line is coated with another anti-human D-Dimer monoclonal antibody, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

### Sample diluent composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

Note: Do not mix or interchange different batches of kits.

### APPLICABLE DEVICE

FIA8000 Quantitative Immunoassay Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened. Store the sample diluent at  $0 \sim 30^{\circ}$ C with a valid period of 24 months.

Store the sample diluent at 2~8°C for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for *plasma and whole blood samples*. Sodium citrate should be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using plasma for better results.
- If testing will be delayed, plasma sample may be stored up to 3 days at 2~8°C or stored at -20°C for 1 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 5. Do not use heat-inactivated samples.
- 6. SAMPLE VOLUME: 120 µl.

### **TEST PROCEDURE**

1. Collect specimens according to user manual.

### Cat.# CG1006

CE IVD

- 2. Test card, sample and reagent should be brought to room temperature before testing.
- Confirm SD card lot No. in accordance with test kit lot No.. Perform "QC (SD)" calibration when necessary (Details refer to 8.2.1 of FIA8000 User Manual).
- 4. On the main interface of FIA8000, press "ENT" button to enter testing interface.
- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 120 µl of sample into one tube of sample diluent, mix gently and thoroughly. Then drop 120 µl (or 4 drops of sample when using disposable pipet) of sample mixture into the sample port on the test card.
- Reaction time: 7 minutes. Insert the test card into FIA8000 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### Notes:

- 1. It is required to perform "QC (SD)" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits.
- 3. Make sure the test card insertion is correct and complete.

### **TEST RESULTS**

Valid: When a purplish-red band appears at the control area (C), use FIA8000 to analyze the test card and get the result. **Invalid:** If no colored band appears in the control area (C), the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### EXPECTED VALUE

The expected normal value for D-Dimer was determined by testing samples from 500 apparently healthy individuals. The  $95^{\rm th}$  percentile of the concentration for D-Dimer is 0.5 mg/L. (The probability that value of a normal person below 0.5 mg/L is 95%.)

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	0.1~10.0 mg/L
Lower Detection Limit	≤0.1 mg/L
Within-Run Precision (n=10)	≤10%
Between-Run Precision	≤15%
Recovery	99%
Method Comparison:	

The assay was compared with SIEMENS CA-7000 and its matching D-Dimer test kits with 200 plasma samples (60 positive samples and 140 negative samples). The correlation coefficient (r) for D-Dimer is 0.978.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- 2. Samples containing interferents such as rheumatoid factor, human anti-mouse antibody and heterophile antibody may influence the results. In this case, results of this test should be used in conjunction with clinical findings and other tests. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	25 g/L	0.1 g/L

### REFERENCES

- Sarig G, Klil-Drori AJ, Chap-Marshak D, Brenner B, Drugan A. Activation of coagulation in amniotic fluid during normal human pregnancy. Thromb Res. 2011 Apr 18.
- Roldán V, Marín F, Muiña B, Torregrosa JM, Hernández-Romero D, Valdés M, Vicente V, Lip GY. Plasma von Willebrand Factor Levels Are an Independent Risk Factor for Adverse Events Including Mortality and Major Bleeding in Anticoagulated Atrial Fibrillation Patients. J Am Coll Cardiol. 2011 Apr 11.
- 3. Sakamoto K, Yamamoto Y, Okamatsu H, Okabe M. D-dimer is helpful for differentiating acute aortic dissection and acute

pulmonary embolism from acute myocardial infarction. Hellenic J Cardiol. 2011 Mar-Apr; 52(2):123~127.

- EN ISO 18113-1:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: *In vitro* diagnostic reagents for professional use (ISO 18113-2:2009).

### **DESCRIPTION OF SYMBOLS USED**

The following graphical symbols used in or found on One Step Test for D-Dimer (Colloidal Gold) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

Key to symbols used					
	Manufacturer		Expiration date		
$\otimes$	Do not reuse	~~	Date of manufacture		
Ĩ	Consult instructions for use	LOT	Batch code		
	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device		
$\overline{\mathbb{V}}$	Sufficient for	EC REP	Authorized representative in the European Community		
CE	CE mark		Do not use if package is damaged		

Thank you for purchasing One Step Test for D-Dimer (Colloidal Gold). Please read this user manual carefully before operating to ensure proper use.

Version: WCG05-DL-S-01

Getein Biotech, Inc. Add: No.9 Bofu Road, Luhe District, Nanjing, 211505, China Tel: +86-25-68568508 Fax: +86-25-68568500 E-mail: tech@getein.com.cn overseas@getein.com.cn Website: www.bio-GP.com.cn and be homogeneous before testing. Avoid multiple freezethaw cycles.

- 5. Do not use heat-inactivated samples.
- 6. SAMPLE VOLUME: 10 µl.

### TEST PROCEDURE

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.
- 3. Confirm SD card lot No. in accordance with test kit lot No.. Perform "QC (SD)" calibration when necessary (Details refer to 8.2.1 of FIA8000 User Manual).
- 4. On the main interface of FIA8000, press "ENT" button to enter testing interface.
- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 10 µl of sample into one tube of sample diluent, mix gently and thoroughly. Then drop 120 ul of sample mixture (or 4 drops of sample mixture when using disposable pipet) into the sample port on the test card.
- 8. Reaction time: 90 seconds. Insert the test card into FIA8000 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### Notes:

- 1. It is required to perform "QC (SD)" calibration when using a new batch of kits
- 2. It is suggested to calibrate once for one batch of kits.
- 3. Make sure the test card insertion is correct and complete.

### TEST RESULTS

Valid: When a purplish-red band appears at the control area (C), use FIA8000 to analyze the test card and get the result. Invalid: If no colored band appears in the control area (C), the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### EXPECTED VALUE

hs-CRP: The expected normal value for hs-CRP was determined by testing samples from 500 apparently healthy individuals. The 95<sup>th</sup> percentile of the concentration for hs-CRP is 3 mg/L. (The probability that hs-CRP value of a normal person below 3 mg/l is 95%)

CRP: The expected normal value for CRP was determined by testing samples from 500 apparently healthy individuals. The 95<sup>th</sup> percentile of the concentration for CRP is 10 mg/L. (The probability that CRP value of a normal person below 10 mg/L is 95%)

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	0.5~200 mg/L
Lower Detection Limit	≤0.5 mg/L
Within-Run Precision (n=10)	≤10%
Between-Run Precision	≤15%
Recovery:	
CRP	101% (mean)
hs-CRP	103% (mean)
Method Comparison:	

The assay was compared with HITACHI 7600/OLYMPUS AU5400 and its matching hs-CRP test kits with 200 serum samples (61 positive samples and 139 negative samples). The correlation coefficient (r) for hs-CRP+CRP is 0.941.

### **I IMITATIONS**

- 1. As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the results of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- 2. Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	10 g/L	0.2 g/L
REFERENCES			

### 1. Danesh J, Whincup P, Wslker M, et al. Low grade inflammation and coronary heart disease: prospective study and updated

meta-analysis, BJM 2000; 321:199~204,

- 2. Rifai N. Ridker PM. Proposed cardiovascular risk assessment algorithm using high-sensitivity C-reactive protein and lipid screening, Clin Chem 2001; 47:28~30,
- 3. EN ISO 18113-1:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- 4. EN ISO 18113-2:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: In vitro diagnostic reagents for professional use (ISO 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on One Step Test for hs-CRP+CRP (Colloidal Gold) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007

Key to symbols used			
	Manufacturer		Expiration date
8	Do not reuse	$\sim$	Date of manufacture
Ĩ	Consult instructions for use	LOT	Batch code
X	Temperature limitation	IVD	<i>In vitr</i> o diagnostic medical device
$\overline{\mathbb{V}}$	Sufficient for	EC REP	Authorized representative in the European Community
CE	CE mark	8	Do not use if package is damaged

Thank you for purchasing One Step Test for hs-CRP+CRP (Colloidal Gold). Please read this user manual carefully before operating to ensure proper use.

Version: WCG07-DI -S-01



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### One Step Test for hs-CRP+CRP

(Colloidal Gold)

**User Manual** 

Cat.# CG1003

CE IVD

### **INTENDED USE**

One Step Test for hs-CRP+CRP (Colloidal Gold) is intended for in vitro quantitative determination of C-reactive protein (CRP) in serum, plasma, whole blood or fingertip blood. Measurement of CRP is useful for the detection and evaluation of infection, tissue injury and inflammatory disorders. Measurement of high sensitivity CRP (hs-CPR), when used in conjunction with traditional clinical laboratory evaluation of acute coronary syndromes (ACS), may be useful as an independent marker of prognosis for recurrent events in patients with stable coronary disease or ACS.

### SUMMARY

C-reactive protein is an acute-phase reactant that precipitated with Pneumococcal C-polysaccharide, and is a non-specific immune response component. CRP has wide distribution in our body, and is an acute-phase protein produced in the liver in response to microbic infection or tissue injury, it measures general levels of inflammation in the body, and the hs-CRP can be used to detect lower concentrations of CRP in serum or plasma. Studies revealed hs-CRP levels seem to be correlated with Atherosclerosis and Acute Mycoardial Infarction. And the hs-CRP is an inflammation "marker" for ACS patient and is helpful for primary prevention and risk assessment of cardiovascular disease. Its combination with the ratio of total cholesterol to HDL-C is more accurate than other risk factor in predicting cardiovascular disease.

The American Heart Association and US Centers for Disease Control and Prevention have advocated hs-CRP as a predictor of cardiovascular disease (CVD) to define risk groups: less than 1.0 mg/L indicates low risk, 1.0 to 3.0 mg/L means moderate risk, and the amount above 3.0 mg/L (lower than 10 mg/L) strongly suggests a high risk of CVD. Moreover, higher CRP levels are found in late pregnant women, mild inflammation and viral infections (10-40 mg/L), active inflammation, bacterial infection (40-200 mg/L), severe bacterial infections and burns (>200 mg/L).

### PRINCIPLE

The test uses an anti-human CRP monoclonal antibody conjugated with colloidal gold and another anti-human CRP monoclonal antibody coated on the test line. After the sample has been applied to the test strip, the gold-labelled anti-human CRP monoclonal antibody binds with the CRP in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human CRP monoclonal antibody resulting in a purplish red streak appears on the test line. The color intensity of the test line increases in proportion to the amount of CRP in sample.

Then insert test card into FIA8000 Quantitative Immunoassay Analyzer (hereinafter referred to as FIA8000), the concentration of CRP in sample will be measured and displayed on the screen. The value will be stored in FIA8000 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### **CONTENTS**

### A kit contains:

1. Getein hs-CRP+CRP test card in a sealed pouch with desiccant

 2. Disposable pipet
 25

 3. User manual
 1

 4. SD card
 1

 5. Sample diluent
 25

 A test card consists of:
 25

A plastic shell and a reagent strip which is composed of a sample pad, a colloidal gold pad (coated with a gold-labelled anti-human CRP monoclonal antibody), nitrocellulose membrane (the test line is coated with another anti-human CRP monoclonal antibody, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

### Sample diluent composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

Note: Do not mix or interchange different batches of kits.

### **APPLICABLE DEVICE**

FIA8000 Quantitative Immunoassay Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened. Store the sample diluent at  $0 \sim 30^{\circ}$ C with a valid period of 24 months.

Store the sample diluent at 2~8°C for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for serum, plasma, whole blood and fingertip blood samples. Heparin, sodium citrate and EDTA can be used as the anticoagulant for plasma, whole blood and fingertip blood. Samples should be free of hemolysis.
- 2. Suggest using serum or plasma for better results.
- If testing will be delayed, serum and plasma samples may be stored up to 7 days at 2~8°C or stored at -20°C for 6 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- 4. Refrigerated or frozen sample should reach room temperature



### Cardiac Troponin I Fast Test Kit

(Immunofluorescence Assay)

### User Manual

Getein1100: Cat.# IF1001 Getein1600: Cat # IF2001

CE IVD

### **INTENDED USE**

Cardiac Troponin I Fast Test Kit (Immunofluorescence Assay) is intended for *in vitro* quantitative determination of Cardiac Troponin I (cTnI) in serum, plasma or whole blood. This test is used as an aid in the diagnosis of myocardial injury such as Acute Myocardial Infarction (AMI), Unstable Angina, Acute Myocarditis and Acute Coronary Syndrome (ACS).

### SUMMARY

Troponin, a molecular complex that is bound to the thin filament (actin) of striated muscle fibers, acts with intracellular calcium to control the interaction of the thin filament with the thick filament (myosin), thus regulating muscle contraction. Troponin consists of three regulatory proteins: T, which connects the troponin complex and tropomyosin (another cardiac muscle regulatory protein); I, which prevents muscle contraction in the absence of calcium; C, which binds calcium. Cardiac Troponin I (MW 22.5 kDa) and the two skeletal muscle isoforms of Troponin I have considerable amino acid sequence homology, but cTnl contains an additional N-terminal sequence and is highly specific for myocardium.

Clinical studies have demonstrated the release of cTnI into the blood stream within hours following acute myocardial infarction (AMI) or ischemic damage. Elevated levels of cTnI are detectable in blood within 4 to 6 hours after the onset of chest pain, reaching peak concentrations in approximately 8 to 28 hours, and remain elevated for 3 to 10 days following AMI. Due to the high myocardial specificity and the long duration of elevation, cTnI has become an important marker in the diagnosis and evaluation of patients suspected of having an AMI.

The current guideline of The Joint European Society of Cardiology/ American College of Cardiology Committee support the use of cTnI as a preferred marker of myocardial injury. Several major studies have shown that cTnI is also a predictor of cardiac risk in patients with unstable angina. The American College of Cardiology and the American Heart Association's current guidelines recommend using troponin results when making treatment decisions regarding unstable angina and non-ST segment elevation MI (NSTEMI).

### PRINCIPLE

The test uses an anti-human cTnI monoclonal antibody conjugated with fluorescence latex and another anti-human cTnI monoclonal antibody coated on the test line. After the sample has been applied to the test strip, the fluorescence latex-labelled anti-human cTnI monoclonal antibody binds with the cTnI in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human cTnI monoclonal antibody. The fluorescence intensity of the test line increases in proportion to the amount of cTnI in sample.

Then insert test card into Getein1100 Immunofluorescence Quantitative Analyzer/Getein1600 Immunofluorescence Quantitative Analyzer (hereinafter referred to as Getein1100 and Getein1600), the concentration of CTnI in sample will be measured and displayed on the screen. The value will be stored in Getein1100/Getein1600 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

1. A kit for Getein1100 contains:

	Getein cTnl test card in a sealed pouch with desiccant
	Disposable pipet ······ 25
	Whole blood buffer ······ 1
	SD card 1
	User manual ······ 1
2.	A kit for Getein1600 contains:
	Sealed cartridge with 24/48 Getein cTnI test cards ······ 2
	User manual ······ 1
	Package specifications:
	2×24 tests/kit, 2×48 tests/kit
	Materials required for Getein1600:
	Sample diluent ····· 1
	Box with pipette tips 1
	Mixing plate 1
З.	Sample diluent/Whole blood buffer composition:
	Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

4. A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, nitrocellulose membrane (one end of the membrane is coated with a fluorescence latex-labelled antihuman cTnI monoclonal antibody, the test line is coated with another anti-human cTnI monoclonal antibody, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

Note: Do not mix or interchange different batches of kits.

### **APPLICABLE DEVICE**

Getein1100 Immunofluorescence Quantitative Analyzer Getein1600 Immunofluorescence Quantitative Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card for Getein1100 within 1 hour once the foil pouch is opened.

For test card of Getein1600: if the cartridge is opened, it could be stable within 24 hours once exposed to air. If the test cards can't be used up at a time, please put the cartridge back to the foil pouch and reseal along the entire edge of zip-seal. The remaining test cards should be used up within 7 days.

Store the sample diluent/whole blood buffer at  $0\sim30^{\circ}$ C with a valid period of 24 months.

Store the sample diluent/whole blood buffer at 2~8 $^\circ C$  for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch or the cartridge is damaged.
- 5. Do not open pouches or the cartridge until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

 This test can be used for serum, plasma and whole blood samples. Heparin and sodium citrate should be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.

- 2. Suggest using serum or plasma for better results.
- Serum or plasma can be used directly. For whole blood sample, one drop of whole blood buffer must be added before testing.
- If testing will be delayed, serum and plasma samples may be stored up to 7 days at 2~8°C or stored at -20°C for 6 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 6. Do not use heat-inactivated samples.
- 7 SAMPLE VOLUME (for Getein1100): 100 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.

For Getein1100:

- Confirm SD card lot No. in accordance with test kit lot No.. Perform "SD Card Calib" calibration when necessary (Details refer to 8.5.2 of Getein1100 User Manual).
- 4. On the main interface of Getein1100, press "ENT" button to enter testing interface.
- Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 100  $\mu$ i of sample (or 3-4 drops of sample when using disposable pipet) into the sample port on the test card (for whole blood sample, one drop of whole blood buffer must be added after loading 100  $\mu$ l sample on the test card).
- Reaction time: 10 minutes. Insert the test card into Getein1100 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically. For Getein1600:
- 9. Each cartridge for Getein1600 contains a specific RFID card which can calibrate automatically.
- 10. Place samples in the designed area of the sample holder, insert the holder and select the right test item, Getein1600 will do the testing and print the result automatically.

### Notes:

- 1. It is required to perform "SD Card Calib" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits for Getein1100.
- 3. Make sure the test card and the sample insertion is correct and complete.

### **TEST RESULTS**

Getein1100/Getein1600 can scan the test card automatically and display the result on the screen. For additional information, please refer to the user manual of Getein1100/Getein1600.

### **EXPECTED VALUE**

The expected normal value for Troponin I was determined by testing samples from 500 apparently healthy individuals. The 99<sup>th</sup> percentile of the concentration for cTnl is 0.1 ng/ml. (The probability that value of a normal person below 0.1 ng/ml is 99%.)

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	0.1~50 ng/ml
Lower Detection Limit	≤ 0.1 ng/ml
Within-Run Precision	≤10%
Between-Run Precision	≤15%
Method Comparison:	

The assay was compared with SIEMENS IMMULITE 2000 and its matching cTnI test kits with 200 serum samples (60 positive samples and 140 negative samples). The correlation coefficient (r) for cTnI is 0.952.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	10 g/L	0.2 g/L

### REFERENCES

- Mauro Pantaghini. Undefined International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). Scientific Division Committee on Standardization of Markers of Cardiac Damage. Clin Chem Lab Med, 1998, 36:887~893.
- Antman EM, Anbe DT, Armstrong PW, et al. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice

Guidelines (Committee to Revise the 1999 Guidelines for the Manage 2004).

- 3. EN ISO 18113-1:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: In vitro diagnostic reagents for professional use (ISO 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on Cardiac Troponin I Fast Test Kit (Immunofluorescence Assay) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

Key to symbols used				
	Manufacturer		Expiration date	
$\otimes$	Do not reuse	~	Date of manufacture	
Ĩ	Consult instructions for use	LOT	Batch code	
1	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device	
$\mathbf{V}$	Sufficient for	EC REP	Authorized representative in the European Community	
CE	CE mark		Do not use if package is damaged	
		- ··		

Thank you for purchasing Cardiac Troponin I Fast Test Kit (Immunofluorescence Assay). Please read this user manual carefully before operating to ensure proper use.

Version: WIF02-S-02

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### **D-Dimer** Fast Test Kit

(Immunofluorescence Assay)

### User Manual

Getein1100: Cat.# IF1006 Getein1600: Cat.# IF2006

CE IVD

### **INTENDED USE**

D-Dimer Fast Test Kit (Immunofluorescence Assay) is intended for *in vitro* quantitative determination of D-Dimer in plasma or whole blood. The test is used as an aid in the assessment and evaluation of patients suspected of deep-vein thrombosis or pulmonary embolism.

### SUMMARY

Deep-vein thrombosis is a common condition, with a lifetime cumulative incidence of 2 to 5 percent. Untreated deep-vein thrombosis can result in pulmonary embolism, a potentially fatal outcome. Anticoagulant therapy reduces both morbidity and mortality from venous thromboembolism, and early diagnosis is therefore important. Accurate diagnosis of deep-vein thrombosis minimizes the risk of thromboembolic complications and averts the exposure of patients without thrombosis to the risks of anticoagulant therapy.

D-Dimer is a marker of endogenous fibrinolysis and should therefore be detectable in patients with deep-vein thrombosis. In recent years, an increasing number of studies have shown the D-Dimer assay has a high negative predictive value and D-Dimer is a sensitive but nonspecific marker of deep-vein thrombosis. Negative D-Dimer can exclude deep-vein thrombosis and pulmonary embolism.

### PRINCIPLE

The test uses an anti-human D-Dimer monoclonal antibody conjugated with fluorescence latex and another anti-human D-Dimer monoclonal antibody coated on the test line. After the sample has been applied to the test strip, the fluorescence latex-labelled anti-human D-Dimer monoclonal antibody binds with the D-Dimer in sample and forms a marked antigen-antibody

complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by another anti-human D-Dimer monoclonal antibody. The fluorescence intensity of the test line increases in proportion to the amount of D-Dimer in sample. Then insert test card into Getein1100 Immunofluorescence Quantitative Analyzer/Getein1600 Immunofluorescence Quantitative Analyzer (hereinafter referred to as Getein1100 and Getein1600), the concentration of D-Dimer in sample will be measured and displayed on the screen. The value will be stored in Getein1100/Getein1600 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

1. A kit for Getein1100 contains:

Getein D-Dimer test card in a sealed pouch with desiccant

Disposable pipet ······ 25	
Sample diluent	
SD card 1	
User manual ······ 1	
2. A kit for Getein1600 contains:	
Sealed cartridge with 24/48 Getein D-Dimer test cards	
User manual ······ 1	
Package specifications:	
2×24 tests/kit, 2×48 tests/kit	
Materials required for Getein1600	

Materials regained for Getein root.	
Sample diluent ······ 1	
Box with pipette tips 1	
Mixing plate 1	

3. Sample diluent composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

4. A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, nitrocellulose membrane (one end of the membrane is coated with a fluorescence latex-labelled anti-human D-Dimer monoclonal antibody, the test line is coated with another anti-human D-Dimer monoclonal antibody and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

Note: Do not mix or interchange different batches of kits.

### APPLICABLE DEVICE

Getein1100 Immunofluorescence Quantitative Analyzer Getein1600 Immunofluorescence Quantitative Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card for Getein1100 within 1 hour once the foil pouch is opened.

For test card of Getein1600: if the cartridge is opened, it could be stable within 24 hours once exposed to air. If the test cards can't be used up at a time, please put the cartridge back to the foil pouch and reseal along the entire edge of zip-seal. The remaining test cards should be used up within 7 days.

Store the sample diluent/whole blood buffer at  $0\sim30^{\circ}$ C with a valid period of 24 months.

Store the sample diluent/whole blood buffer at 2~8  $^\circ C$  for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch or the cartridge is damaged.
- 5. Do not open pouches or the cartridge until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for *plasma and whole blood samples*. Sodium citrate can be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using plasma for better results.
- If testing will be delayed, plasma sample may be stored up to 3 days at 2~8°C or stored at -20°C for 1 month before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- 4. Refrigerated or frozen sample should reach room temperature

and be homogeneous before testing. Avoid multiple freezethaw cycles.

5. Do not use heat-inactivated samples.

6. SAMPLE VOLUME (for Getein1100): 100 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.

For Getein1100:

- Confirm SD card lot No. in accordance with test kit lot No.. Perform "SD Card Calib" calibration when necessary (Details refer to 8.5.2 of Getein1100 User Manual).
- 4. On the main interface of Getein1100, press "ENT" button to enter testing interface.
- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 100  $\mu$  of sample into one tube of sample diluent, mix gently and thoroughly. Then drop 100  $\mu$ l of sample mixture (or 3~4 drops of sample when using disposable pipet) into the sample port on the test card.
- Reaction time: 10 minutes. Insert the test card into Getein1100 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically. For Getein1600:
- 9. Each cartridge for Getein1600 contains a specific RFID card which can calibrate automatically.
- 10. Place samples in the designed area of the sample holder, insert the holder and select the right test item, Getein1600 will do the testing and print the result automatically.

### Notes:

- 1. It is required to perform "SD Card Calib" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits for Getein1100.
- 3. Make sure the test card and the sample insertion is correct and complete.

### TEST RESULTS

Getein1100/Getein1600 can scan the test card automatically and display the result on the screen. For additional information, please refer to the user manual of Getein1100/Getein1600.

### EXPECTED VALUE

The expected normal value for D-Dimer was determined by testing samples from 500 apparently healthy individuals. The 95<sup>th</sup> percentile of the concentration for D-Dimer is 0.5 mg/L. (The probability that value of a normal person below 0.5 mg/L is 95%.)

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	0.1~10.0 mg/L
Lower Detection Limit	≤0.1 mg/L
Within-Run Precision	≤10%
Between-Run Precision	≤15%
Method Comparison:	

The assay was compared with SIEMENS CA-7000 and its matching D-Dimer test kits with 200 plasma samples (60 positive samples and 140 negative samples). The correlation coefficient (r) for D-Dimer is 0.978.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- 2. Samples containing interferents such as rheumatoid factor, human anti-mouse antibody and heterophile antibody may influence the results. In this case, results of this test should be used in conjunction with clinical findings and other tests. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	25 g/L	0.1 g/L

### REFERENCES

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- Roldán V, Marín F, Muiña B, Torregrosa JM, Hernández-Romero D, Valdés M, Vicente V, Lip GY. Plasma von Willebrand Factor Levels Are an Independent Risk Factor for Adverse Events Including Mortality and Major Bleeding in Anticoagulated

Atrial Fibrillation Patients. J Am Coll Cardiol. 2011 Apr 11.

- Sakamoto K, Yamamoto Y, Okamatsu H, Okabe M. D-dimer is helpful for differentiating acute aortic dissection and acute pulmonary embolism from acute myocardial infarction. Hellenic J Cardiol. 2011 Mar-Apr; 52(2):123-127.
- 4. EN ISO 18113-1:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: *In vitro* diagnostic reagents for professional use (ISO 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on D-Dimer Fast Test Kit (Immunofluorescence Assay) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

Key to symbols used			
	Manufacturer		Expiration date
8	Do not reuse	M	Date of manufacture
Ĩ	Consult instructions for use	LOT	Batch code
X	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device
$\nabla$	Sufficient for	EC REP	Authorized representative in the European Community
CE	CE mark		Do not use if package is damaged

Thank you for purchasing D-Dimer Fast Test Kit (Immunofluorescence Assay). Please read this user manual carefully before operating to ensure proper use.

Version: WIF05-S-02





### NT-proBNP Fast Test Kit

(Immunofluorescence Assay)

### User Manual

Getein1100: Cat.# IF1002 Getein1600: Cat.# IF2002

CE IVD

### INTENDED USE

NT-proBNP Fast Test Kit (Immunofluorescence Assay) is intended for *in vitro* quantitative determination of N-terminal B-type natriuretic peptide precursor (NT-proBNP) in serum, plasma or whole blood. This test is used as an aid in the clinical diagnosis, prognosis and evaluation of Heart Failure (HF).

### SUMMARY

N-terminal B-type natriuretic peptide precursor (NT-proBNP) is secreted from the left cardiac ventricle in response to volume and pressure overload. It's an inactive N-terminal fragment that split from BNP prohormone. NT-proBNP can be used to evaluate heart contractile, diastolic dysfunction, and ventricular segmental wall motion coordination. Besides, it has high sensitivity and negative predictive value (>97%). As a gold standard recommended by the European Society of Cardiology, American Heart Association, and American College of Cardiology for the diagnosis and prognosis of heart failure, NT-proBNP is used to indicate heart failure patient at the early stage, determine HF risk levels, monitor medical efficiency of HF drug, evaluate prognosis of HF patient and to distinguish dyspnea that caused by HF from other diseases. Furthermore, NT-proBNP is a risk assessment indicator for Acute Coronary Syndrome.

### PRINCIPLE

The test uses an anti-human NT-proBNP monoclonal antibody conjugated with fluorescence latex and an anti-human NT-proBNP polyclonal antibody coated on the test line. After the sample has been applied to the test strip, the fluorescence latex-labelled antihuman NT-proBNP monoclonal antibody binds with the NT-proBNP in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human NT-proBNP polyclonal antibody. The fluorescence intensity of the test line increases in proportion to the amount of NT-proBNP in sample.

Then insert test card into Getein1100 Immunofluorescence Quantitative Analyzer/Getein1600 Immunofluorescence Quantitative Analyzer (hereinafter referred to as Getein1100 and Getein1600), the concentration of NT-proBNP in sample will be measured and displayed on the screen. The value will be stored in Getein1100/Getein1600 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

1. A kit for Getein1100 contains:

	Getein NT-proBNP test card in a sealed pouch with desiccant
	Disposable pipet
	User manual ······
2.	A kit for Getein1600 contains:
	Sealed cartridge with 24/48 Getein NT-proBNP test cards
	User manual ······ 1
	Package specifications:
	2×24 tests/kit, 2×48 tests/kit
	Materials required for Getein1600:
	Sample diluent ······· 1
	Box with pipette tips ······ 1
	Mixing plate ·······1
з.	Sample diluent/Whole blood buffer composition:
	Phosphate buffered saline, proteins, detergent, preservative,

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

4. A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, nitrocellulose membrane (one end of the membrane is coated with a fluorescence latex-labelled antihuman NT-proBNP monoclonal antibody, the test line is coated with another anti-human NT-proBNP polyclonal antibody and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

Note: Components from different batches must not be interchanged.

### APPLICABLE DEVICE

Getein1100 Immunofluorescence Quantitative Analyzer Getein1600 Immunofluorescence Quantitative Analyzer

### STORAGE AND STABILITY

Store the test card at 4~30°C with a valid period of 24 months. Use the test card for Getein1100 within 1 hour once the foil pouch is opened.

For test card of Getein1600: if the cartridge is opened, it could be stable within 24 hours once exposed to air. If the test cards can't be used up at a time, please put the cartridge back to the foil pouch and reseal along the entire edge of zip-seal. The remaining test cards should be used up within 7 days.

Store the sample diluent/whole blood buffer at  $0\sim30^{\circ}$ C with a valid period of 24 months.

Store the sample diluent/whole blood buffer at  $2\sim8^{\circ}C$  for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- Do not use the test card if the foil pouch or the cartridge is damaged.
- 5. Do not open pouches or the cartridge until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow the manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for serum, plasma and whole blood samples. Heparin and sodium citrate should be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using serum or plasma for better results.
- Serum or plasma can be used directly. For whole blood sample, one drop of whole blood buffer must be added before testing.
- 4. If testing will be delayed, serum and plasma samples may be stored up to 1 day at 2~8°C or stored at -20°C for 3 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 6. Do not use heat-inactivated samples.
- 7. SAMPLE VOLUME (for Getein1100): 100 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.

### For Getein1100:

- Confirm SD card lot No. in accordance with test kit lot No.. Perform "SD Card Calib" calibration when necessary (Details refer to 8.5.2 of Getein1100 User Manual).
- 4. On the main interface of Getein1100, press "ENT" button to enter testing interface.
- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 6. Put the test card on a clean table, horizontally placed.
- Using sample transfer pipette, deliver 100 µl of sample (or 3~4 drops of sample when using disposable pipet) into the sample port on the test card (for whole blood sample, one drop of whole blood buffer must be added after loading 100 µl sample on the test card).
- Reaction time: 10 minutes. Insert the test card into Getein1100 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### For Getein1600:

- 9. Each cartridge for Getein1600 contains a specific RFID card which can calibrate automatically.
- 10. Place samples in the designed area of the sample holder, insert the holder and select the right test item, Getein1600 will do the testing and print the result automatically.

### Notes:

- 1. It is required to perform "SD Card Calib" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits for Getein1100.
- 3. Make sure the test card and the sample insertion is correct and complete.

### TEST RESULTS

Getein1100/Getein1600 can scan the test card automatically and display the result on the screen. For additional information, please refer to the user manual of Getein1100/Getein1600.

### EXPECTED VALUE

The expected normal value for NT-proBNP was determined by testing samples from 2,500 apparently healthy individuals. The 95<sup>th</sup> percentile of the concentration for NT-proBNP is 185 pg/ml and the 97.5<sup>th</sup> percentile of the concentration for NT-proBNP is 300 pg/ml. Because of the apparent difference of the concentration

of NT-proBNP among different age groups, the reference values of the NT-proBNP are reported in groups. Details refer to Table 1. Clinical diagnosis value: refer to Roche criterion, details see Table 2.

### Table 1 NT-proBNP reference value

Age	≤44	45-54	55-64	65-74	≥75	Statistic analysis
95	98.5	130	215	290	530	185
97.5	116	170	270	350	740	300

Table 2 Standard of excluding/diagnosing HF by NT-proBNP

Age	<50	50-75	≥75	Diagnosis of HF
	≥450	≥900	≥1800	High probability of HF
NT-proBNP (pg/ml)	300-450	300-900	300-1800	Low probability of HF, need to combine with other clinical evaluation
	<300	<300	<300	Exclude HF

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	100~35000 pg/ml
Lower Detection Limit	≤100 pg/m <b>l</b>
Within-Run Precision	≤10%
Between-Run Precision	≤15%
Method Comparison:	

The assay was compared with Roche MODULAR ANALYTICS E170 and its matching NT-proBNP test kits with 200 serum samples (63 positive samples and 137 negative samples). The correlation coefficient (r) for NT-proBNP is 0.959.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	5 g/L	10 g/L	0.2 g/L

### REFERENCES

 de Lemos JA, McGuire DK, Drazner MH. B-type natriuretic peptide in cardiovascular disease. Lancet 2003; 362:316~322.

- Pfister R, Scholz M, Wielckens K, Erdmann E, Schneider CA. The value of natriuretic peptides NT-pro-BNP and BNP for the assessment of left-ventricular volume and function. A prospective study of 150 patients. Deutsche medizinische Wochenschrift (1946) 2002; 127(49):2605.
- 3. EN ISO 18113-1:2009 *In vitro* diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: In vitro diagnostic reagents for professional use (ISO 18113-2: 2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on NT-proBNP Fast Test Kit (Immunofluorescence Assay) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

	Key to symbols used							
		Manufacturer		Expiration date				
	$\otimes$	Do not reuse	Z	Date of manufacture				
ſ		Consult instructions for use		Batch code				
ſ	<b>1</b>	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device				
ſ	Sufficient for		EC REP	Authorized representative in the European Community				
	CE CE mark		8	Do not use if package is damaged				

Thank you for purchasing NT-proBNP Fast Test Kit (Immunofluorescence Assay). Please read this user manual carefully before operating to ensure proper use.

Version: WIF03-S-02



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### One Step Test for mAlb

(Colloidal Gold)

**User Manual** 

Cat.# CG1009

CE IVD

### **INTENDED USE**

One Step Test for mAlb (Colloidal Gold) is intended for *in vitro* quantitative determination of microalbuminuria (mAlb) in urine. An elevated mAlb concentration below the proteinuric level has long been recognized as a marker of kidney disease and increased cardiovascular risk in diabetic nephropathy.

### SUMMARY

Albumin is one of the major plasma proteins. In normal circumstances, albumin molecules are too large to cross the glomerular basement membrane. Therefore, albumin is usually present in very low concentration in urine. Damage to the glomerular basement membrane can alter its permeability. Albumin is then able to enter the urine. Sustained elevation of urinary albumin concentration is called Microalbuminuria (mAlb). mAlb arises from increased leakage of glomerular basement membrane. So, mAlb is recognized as a marker of kidney damage.

Recent years, determination of mAlb is linked with increased risk for cardiovascular events rather than progression to endstage kidney disease. It is a valuable tool for the detection of cardiovascular risk in diabetic nephropathy. Early detection of microalbuminuria in diabetes is critical because immediate intervention can slow the progression of disease. The epidemiology of microalbuminuria reveals a dose association between systemic endothelial dysfunction and vascular disease, also implicating glomerular endothelial dysfunction in microalbuminuria.

### PRINCIPLE

The test is based on the competition immune-detection method and uses an anti-human mAlb monoclonal antibody conjugated with colloidal gold and recombinant mAlb antigen coated on the test line. After the sample has been applied to the test strip, mAlb in the sample will compete with recombinant mAlb antigen on nitrocellulose matrix for gold-labelled mAlb monoclonal antibody. As a result, the concentration of mAlb antigen in specimen shows inverse proportionally with the color intensity of mAlb. The color intensity of the test line increases in proportion to the amount of mAlb in sample. Then insert test card into FIA8000 Quantitative Immunoassav Analyzer (hereinafter referred to as FIA8000), the concentration of mAlb in sample will be measured and displayed on the screen. The value will be stored in FIA8000 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

### A kit contains:

- 1. Getein mAlb test card in a sealed pouch with desiccant
- 2. Disposable pipet
   25

   3. User manual
   1

   4. SD card
   1

A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, a colloidal gold pad (coated with gold-labelled antihuman mAlb monoclonal antibody), nitrocellulose membrane (the test line is coated with a mAlb recombinant antigen, and the control line is coated with rabbit anti-goat IgG antibody), absorbent paper and liner.

Note: Do not mix or interchange different batches of kits.

### APPLICABLE DEVICE

FIA8000 Quantitative Immunoassay Analyzer

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow the manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- 1. This test can be used for *urine sample*.
- Urine sample can be preserved at room temperature for 4 hours, please test it as soon as possible. If testing will be delayed, urine sample may be stored up to 3 days at 2~8°C before testing.
- 3. Samples should be brought to room temperature before testing.
- 4. Do not use frozen urine samples.
- 5. Do not use heat-inactivated samples.
- 6. SAMPLE VOLUME: 120 µl.

### **TEST PROCEDURE**

- 1. Collect specimen according to user manual.
- 2. Test card, sample should be bought to room temperature before testing.
- Confirm SD card lot No. in accordance with test kit lot No.. Perform "QC (SD)" calibration when necessary (Details refer to 8.2.1 of FIA8000 User Manual).
- 4. On the main interface of FIA8000, press "ENT" button to

enter testing interface.

- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification
- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 120 µl of sample (or 4 drops of sample when using disposable pipet) into the sample port on the test card.
- 8. Reaction time: 3 minutes. Insert the test card into FIA8000 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### Notes:

- 1. It is required to perform "QC (SD)" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits.
- 3. Make sure the test card insertion is correct and complete.

### **TEST RESULTS**

Valid: When a purplish-red band appears at the control area (C), use FIA8000 to analyze the test card and get the result. Invalid: If no colored band appears in the control area (C), the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### EXPECTED VALUE

The expected normal value for mAlb was determined by testing samples from 500 apparently healthy individuals. The 95th percentile of the concentration for mAlb is 20.0 mg/L. (The probability that value of a normal person below 20.0 mg/L is 95%.)

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	10.0~200.0 mg/L
Lower Detection Limit	≤10.0 mg/L
Within-Run Precision	≤10%

Between-Run Precision

### Method Comparison:

The assay was compared with OLYMPUS AU5400 analyzer and its matching Randox mAlb test kits with 200 urine samples (62 positive samples and 138 negative samples). The correlation coefficient (r) is 0.980.

### LIMITATIONS

- 1. As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms
- 2. Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents

Interferent	Creatinine	Glucose	Urea
Concentration (Max)	10 g/L	10 g/L	100 g/L

### REFERENCES

- 1. Cöl M, Ocaktan E, Ozdemir O, et al. Microalbuminuria: prevalence in hypertensives and diabetics. Acta Med Austriaca. 2004, 31(1):23-29.
- 2. McTaggart MP, Price CP, Pinnock RG, et al. The diagnostic accuracy of a urine albumin-creatinine ratio point-of-care test for detection of albuminuria in primary care. Am J Kidney Dis. 2012, 60(5):787-794.
- 3. Denis Sviridov, Glen L. Hortin. Urine albumin measurement: Effects of urine matrix constituents. Clinica Chimica Acta. 2009, 404(2):140-143.
- 4. Reboldi G, Gentile G, Angeli F, et al. Microalbuminuria and hypertension. Minerva Med. 2005, 96(4):261-75.
- 5. EN ISO 18113-1:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- 6. EN ISO 18113-2:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 2: In vitro diagnostic reagents for professional use (ISO

### 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on One Step Test for mAlb (Colloidal Gold) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

	Key to symbols used								
	Manufacturer		Expiration date						
8	Do not reuse		Date of manufacture						
Ĩ	Consult instructions for use	LOT	Batch code						
X	Temperature limitation		<i>In vitro</i> diagnostic medical device						
$\nabla$	Sufficient for	EC REP	Authorized representative in the European Community						
CE	CE mark		Do not use if package is damaged						

Thank you for purchasing One Step Test for mAlb (Colloidal Gold). Please read this user manual carefully before operating to ensure proper use.

Version: WCG10-DI -S-01



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≤15%



### One Step Test for NT-proBNP

(Colloidal Gold)

**User Manual** 

Cat.# CG1002

CE IVD

### **INTENDED USE**

One Step Test for NT-proBNP (Colloidal Gold) is intended for *in vitro* quantitative determination of N-terminal B-type natriuretic peptide precursor (NT-proBNP) in serum, plasma or whole blood. This test is used as an aid in the clinical diagnosis, prognosis and evaluation of Heart Failure (HF).

### SUMMARY

N-terminal B-type natriuretic peptide precursor (NT-proBNP) is secreted from the left cardiac ventricle in response to volume and pressure overload. It's an inactive N-terminal fragment that split from BNP prohormone. NT-proBNP can be used to evaluate heart contractile, diastolic dysfunction, and ventricular segmental wall motion coordination. Besides, it has high sensitivity and negative predictive value (>97%). As a gold standard recommended by the European Society of Cardiology, American Heart Association, and American College of Cardiology for the diagnosis and prognosis of heart failure, NT-proBNP is used to indicate heart failure patient at the early stage, determine HF risk levels, monitor medical efficiency of HF drug, evaluate prognosis of HF patient and to distinguish dyspnea that caused by HF from other diseases. Furthermore, NT-proBNP is a risk assessment indicator for Acute Coronary Syndrome.

### PRINCIPLE

The test uses an anti-human NT-proBNP monoclonal antibody conjugated with colloidal gold and an anti-human NT-proBNP polyclonal antibody coated on the test line. After the sample has been applied to the test strip, the gold-labelled anti-human NT-proBNP monoclonal antibody binds with the NT-proBNP in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human NT-proBNP polyclonal antibody resulting in a purplish red streak appears on the test line. The color intensity of the test line increases in proportion to the amount of NT-proBNP in sample.

Then insert test card into FIA8000 Quantitative Immunoassay Analyzer (hereinafter referred to as FIA8000), the concentration of NT-proBNP in sample will be measured and displayed on the screen. The value will be stored in FIA8000 and available for downloading. The result can be easily transmitted to the laboratory or hospital information system.

### CONTENTS

### A kit contains:

1. Getein NT-proBNP test card in a sealed pouch with desiccant

	5
2. Disposable pipet ······2	5
3. User manual ······ 1	
4. SD card 1	
5. Whole blood buffer 1	
A test card consists of	

A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, a colloidal gold pad (coated with gold-labelled anti-human NT-proBNP monoclonal antibody), nitrocellulose membrane (the test line is coated with an anti-human NT-proBNP polyclonal antibody, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

### Whole blood buffer composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

Note: Do not mix or interchange different batches of kits.

### APPLICABLE DEVICE

FIA8000 Quantitative Immunoassay Analyzer

### STORAGE AND STABILITY

Store the test card at 4~30°C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened. Store the whole blood buffer at 0~30°C with a valid period of 24 months.

Store the whole blood buffer at 2~8°C for better results.

### PRECAUTIONS

- 1. For *in vitro* diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for serum, plasma and whole blood samples. Heparin and sodium citrate can be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using serum or plasma for better results.
- Serum or plasma can be used directly. For whole blood sample, one drop of whole blood buffer must be added before testing.
- 4. If testing will be delayed, serum and plasma samples may be stored up to 1 day at 2~8°C or stored at -20°C for 3 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).
- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 6. Do not use heat-inactivated samples.
- 7. SAMPLE VOLUME: 120 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.
- 3. Confirm SD card lot No. in accordance with test kit lot No.. Perform "QC (SD)" calibration when necessary (Details refer to 8.2.1 of FIA8000 User Manual).
- 4. On the main interface of FIA8000, press "ENT" button to enter testing interface.
- 5. Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control

### identification.

- 6. Put the test card on a clean table, horizontally placed.
- 7. Using sample transfer pipette, deliver 120 µl of sample (or 4 drops of sample when using disposable pipet) into the sample port on the test card (for whole blood sample, one drop of whole blood buffer must be added after loading 120 µl sample on the test card).
- Reaction time: 15 minutes. Insert the test card into FIA8000 and press "ENT" button after reaction time is elapsed. The result will be shown on the screen and printed automatically.

### Notes:

- 1. It is required to perform "QC (SD)" calibration when using a new batch of kits.
- 2. It is suggested to calibrate once for one batch of kits.
- 3. Make sure the test card insertion is correct and complete.

### **TEST RESULTS**

Valid: When a purplish-red band appears at the control area (C), use FIA8000 to analyze the test card and get the result. **Invalid:** If no colored band appears in the control area (C), the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### **EXPECTED VALUE**

The expected normal value for NT-proBNP was determined by testing samples from 2,500 apparently healthy individuals. The 95<sup>th</sup> percentile of the concentration for NT-proBNP is 185 pg/ml and the 97.5<sup>th</sup> percentile of the concentration for NT-proBNP is 300 pg/ml. Because of the apparent difference of the concentration of NT-proBNP among different age groups, the reference values of the NT-proBNP are reported in groups. Details refer to Table 1. Clinical diagnosis value: refer to Roche criterion, details see Table 2.

### Table 1 NT-proBNP reference value

Age	≤44	45-54	55 <b>-</b> 64	65-74	≥75	Statistic analysis
95	98.5	130	215	290	530	185
97.5	116	170	270	350	740	300

Table 2 Standard of excluding/diagnosing HF by NT-proBNP

Age	<50	50 <b>-</b> 75	≥75	Diagnosis of HF
	≥450	≥900	≥1800	High probability of HF
NT-proBNP (pg/ml)	300-450	300-900	300-1800	Low probability of HF, need to combine with other clinical evaluation
	<300	<300	<300	Exclude HF

It is recommended that each laboratory establish its own expected values for the population it serves.

### PERFORMANCE CHARACTERISTICS

Measuring Range	100~35000 pg/ml
Lower Detection Limit	≤100 pg/ml
Within-Run Precision (n=10)	≤10%
Between-Run Precision	≤15%
Recovery:	
NT-proBNP for low-sensitivity test line	103% (mean)
NT-proBNP for high-sensitivity test line	98% (mean)
Method Comparison:	

The assay was compared with Roche MODULAR ANALYTICS E170 and its matching NT-proBNP test kits with 200 serum samples (63 positive samples and 137 negative samples). The correlation coefficient (r) for NT-proBNP is 0.959.

### LIMITATIONS

- As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.
- Samples containing interferents may influence the results. The table below listed the maximum allowance of these potential interferents.

Interferent	Hemoglobin	Triglyceride	Bilirubin
Concentration (Max)	10 g/L	15 g/L	0.3 g/L

### REFERENCES

- de Lemos JA, McGuire DK, Drazner MH. B-type natriuretic peptide in cardiovascular disease. Lancet 2003; 362:316~ 322.
- Pfister R, Scholz M, Wielckens K, Erdmann E, Schneider CA. The value of natriuretic peptides NT-pro-BNP and BNP for the assessment of left-ventricular volume and function. A

prospective study of 150 patients. Deutsche medizinische Wochenschrift (1946) 2002; 127(49):2605.

- EN ISO 18113-1:2009 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2009 *In vitro* diagnostic medical devices - Information supplied by the manufacturer (labelling) - Part 2: *In vitro* diagnostic reagents for professional use (ISO 18113-2:2009).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on One Step Test for NT-proBNP (Colloidal Gold) are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

Key to symbols used				
<b>***</b>	Manufacturer		Expiration date	
8	Do not reuse		Date of manufacture	
Ĩ	Consult instructions for use	LOT	Batch code	
X	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device	
$\overline{\mathbb{V}}$	Sufficient for	EC REP	Authorized representative in the European Community	
CE	CE mark	$\otimes$	Do not use if package is damaged	

Thank you for purchasing One Step Test for NT-proBNP (Colloidal Gold). Please read this user manual carefully before operating to ensure proper use.

Version: WCG03-DL-S-01



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### CE IVD

### **cTnl Control**

Cat.# QC 001

User Manual

### **PRODUCT NAME**

cTnl Control

### **PRODUCT SPECIFICATION**

cTnl Control - Level 1/2/3

Level 1 1 x 1 ml
Level 2 1 x 1 ml
Level 3 1 x 1 ml

### **INTENDED USE**

This product is intended for *in vitro* diagnostic use in the quality control of Cardiac Troponin I (cTnI) on the Getein Platforms.

### PRINCIPLE

The lyophilized cTnI control is prepared from dissolving stable and high quality recombinant cTnI antigen into calf serum. With matching equipments and reagents, it can fulfill value transfer work. As different equipments and reagents have uncertainty to some extent, different control results may appear.

### CONTENTS

The kit contains:

1. cTnl Control –Level 1 ······ 1 x 1 ml
2. cTnl Control –Level 2 ······ 1 x 1 ml
3. cTnl Control –Level 3 ······ 1 x 1 ml
4. User manual ······ 1
5. Target value sheet ······ 1

### MATCHING EQUIPMENTS

FIA8000 Quantitative Immunoassay Analyzer Getein1100/1600 Immunofluorescence Quantitative Analyzer

### STORAGE AND STABILITY

**UNOPENED:** The product is stable for 18 months when stored at -20°C and is stable for 7 days at 2-8°C avoid light. **OPENED:** The product is stable for 7 days at 2-8°C if kept capped in original container and free from contamination. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial. The residual product is recommended to be dispensed into smaller vials and they are stable for 18 months when stored at -20 °C.

### MATERIALS REQUIRED BUT NOT PROVIDED

- 1.1 ml pipette
- 2. Distilled water
- 3. Getein test kit
- 4. Getein instrument

### **TEST PROCEDURE**

- 1. The product should be brought to room temperature (15-30°C) prior to use.
- 2. Open the vial carefully in case of loss of content.
- 3. Reconstitute each vial with 1 ml of distilled water.

- 4. Gently mix until all material has dissolved. Avoid violent shaking.
- 5. Keep it at room temperature for 5-10 minutes before use.
- Treat the control in the same manner as patient specimen in the assay procedure. Follow the directions of test kit and the instrument application instruction.

### **ASSIGNED VALUES**

Refer to values listed on the target value sheet.

If the result is beyond the range, it indicates the existence of some unreliable factors in the testing system. Referring to the control graph helps judge the accuracy and stability of the testing system.

The expected range of the mean is provided to aid laboratory until it has established its own mean and SD for its methods.

### PERFORMANCE CHARACTERISTICS

- 1. Homogeneity: ≤ 15%
- 2. Accuracy range: Target value ± 40%

### LIMITATIONS

- 1. This product can only be used on the Getein Platforms.
- Variation exists between different equipments developed by different methods even using the same control product.
- 3. This product is not intended to be used as standard material.

### NOTES

- 1. For in vitro diagnostic use only.
- 2. Do not use the product beyond the expiration date.
- 3. Avoid multiple freeze-thaw cycles.
- 4. Do not use the product if it is contaminated with bacteria.
- 5. Proper handling and disposal methods should be followed in accordance with local regulations.

### **DESCRIPTION OF SYMBOLS USED**

The following graphical symbols used in or found on cTnI control are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

	Key to symbols used				
		Manufacturer		Expiration date	
	$\otimes$	Do not reuse	M	Date of manufacture	
	Ĩ	Consult instructions for use	LOT	Batch code	
ĺ	1	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device	
ĺ	$\nabla$	Sufficient for	EC REP	Authorized representative in the European Community	
	CE	CE mark	8	Do not use if package is damaged	

Thank you for purchasing cTnI Control.

Please read this user manual carefully before operating to ensure proper use.

Version: WZK01-S-01



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### CE IVD

### **D-Dimer Control**

Cat.# QC 006

User Manual

### **PRODUCT NAME**

**D-Dimer Control** 

### **PRODUCT SPECIFICATION**

D-Dimer Control - Level 1/2/3

Level 1 1 x 1 ml
Level 2 1 x 1 ml
Level 3 1 x 1 ml

### **INTENDED USE**

This product is intended for *in vitro* diagnostic use in the quality control of D-Dimer on the Getein Platforms.

### PRINCIPLE

The lyophilized D-Dimer control is prepared from dissolving stable and high quality recombinant D-Dimer antigen into calf serum. With matching equipments and reagents, it can fulfill value transfer work. As different equipments and reagents have uncertainty to some extent, different control results may appear.

### CONTENTS

The kit contains:

1. D-Dimer Control –Level 1 ······ 1 x 1 ml
2. D-Dimer Control –Level 2 ······ 1 x 1 ml
3. D-Dimer Control –Level 3 ······ 1 x 1 ml
4. User manual ······ 1
5. Target value sheet ······ 1

### MATCHING EQUIPMENTS

FIA8000 Quantitative Immunoassay Analyzer Getein1100/1600 Immunofluorescence Quantitative Analyzer

### STORAGE AND STABILITY

**UNOPENED:** The product is stable for 18 months when stored at -20°C and is stable for 7 days at 2-8°C avoid light. **OPENED:** The product is stable for 7 days at 2-8°C if kept capped in original container and free from contamination. Only the required amount of product should be removed. After use, any residual product should NOT BE RETURNED to the original vial. The residual product is recommended to be dispensed into smaller vials and they are stable for 18 months when stored at -20 °C.

### MATERIALS REQUIRED BUT NOT PROVIDED

- 1.1 ml pipette
- 2. Distilled water
- 3. Getein test kit
- 4. Getein instrument

### **TEST PROCEDURE**

- 1. The product should be brought to room temperature (15-30°C) prior to use.
- 2. Open the vial carefully in case of loss of content.
- 3. Reconstitute each vial with 1 ml of distilled water.

- 4. Gently mix until all material has dissolved. Avoid violent shaking.
- 5. Keep it at room temperature for 5-10 minutes before use.
- Treat the control in the same manner as patient specimen in the assay procedure. Follow the directions of test kit and the instrument application instruction.

### **ASSIGNED VALUES**

Refer to values listed on the target value sheet.

If the result is beyond the range, it indicates the existence of some unreliable factors in the testing system. Referring to the control graph helps judge the accuracy and stability of the testing system.

The expected range of the mean is provided to aid laboratory until it has established its own mean and SD for its methods.

### PERFORMANCE CHARACTERISTICS

- 1. Homogeneity: ≤ 15%
- 2. Accuracy range: Target value ± 40%

### LIMITATIONS

- 1. This product can only be used on the Getein Platforms.
- Variation exists between different equipments developed by different methods even using the same control product.
- 3. This product is not intended to be used as standard material.

### NOTES

- 1. For in vitro diagnostic use only.
- 2. Do not use the product beyond the expiration date.
- 3. Avoid multiple freeze-thaw cycles.
- 4. Do not use the product if it is contaminated with bacteria.
- 5. Proper handling and disposal methods should be followed in accordance with local regulations.

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on D-Dimer control are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223-1:2007.

	Key to symbols used				
	2	Manufacturer		Expiration date	
	$\mathbb{R}$	Do not reuse	M	Date of manufacture	
Ľ	ì	Consult instructions for use	LOT	Batch code	
1		Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device	
$\overline{\nabla}$	57	Sufficient for	EC REP	Authorized representative in the European Community	
C	E	CE mark	8	Do not use if package is damaged	

Thank you for purchasing D-Dimer Control.

Please read this user manual carefully before operating to ensure proper use.

Version: WZK04-S-01



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### Cardiac Troponin I Fast Test Kit

**User Manual** 

### Cat.# CG2001

CE IVD

### INTENDED USE

Cardiac Troponin I Fast Test Kit is intended for *in vitro* qualitative and semi-quantitative determination of cardiac Troponin I (cTnI) in serum, plasma or whole blood. This test is used as an aid in the diagnosis of myocardial injury such as Acute Myocardial Infarction (AMI), Unstable Angina, Acute Myocarditis and Acute Coronary Syndrome (ACS).

### SUMMARY

Troponin, a molecular complex that is bound to the thin filament (actin) of striated muscle fibers, acts with intracellular calcium to control the interaction of the thin filament with the thick filament (myosin), thus regulating muscle contraction. Troponin consists of three subunits: T, which connects the troponin complex and tropomyosin (another cardiac muscle regulatory protein); I, which prevents muscle contraction in the absence of calcium; and C, which binds calcium. Cardiac Troponin I (MW 22.5 kDa) and the two skeletal muscle isoforms of Troponin I have considerable amino acid sequence homology, but cTnl contains an additional N-terminal sequence and is highly specific for myocardium.

Clinical studies have demonstrated the release of cTnl into the blood stream within hours following acute myocardial infarctions (AMI) or ischemic damage. Elevated levels of cTnl are detectable in blood within 4 to 6 hours after the onset of chest pain, reaching peak concentrations in approximately 8 to 28 hours, and remain elevated for 3 to 10 days following AMI. Due to the high myocardial specificity and the long duration of elevation, cTnl has become an important marker in the diagnosis and

evaluation of patients suspected of having an AMI. The current guideline of The Joint European Society of Cardiology/ American College of Cardiology Committee support the use of cTnI as a preferred marker of myocardial injury. Several major studies have shown that cTnI is also a predictor of cardiac risk in patients with unstable angina. The American College of Cardiology and the American Heart Association's current guidelines recommend using troponin results when making treatment decisions regarding unstable angina and non-ST segment elevation MI (NSTEMI).

### PRINCIPLE

The test uses an anti-human cTnI monoclonal antibody conjugated with colloidal gold and another anti-human cTnI monoclonal antibody coated on the test line. After the sample has been applied to the test strip, the gold-labelled anti-human cTnI monoclonal antibody binds with the cTnI in sample and forms a marked antigen-antibody complex. This complex moves to the test card detection zone by capillary action. Then marked antigen-antibody complex is captured on the test line by the anti-human cTnI monoclonal antibody resulting in a purplish red streak appears on the test line. The color intensity of the test line increases in proportion to the amount of cTnI in sample.

### CONTENTS

### A kit contains:

1. Getein cTnI test card in a sealed pouch with desiccant

25	5
2. Disposable pipet ······25	ō
3. User manual ······ 1	
4. Standard colorimetric card ······1	
5. Whole blood buffer ······ 1	
A tast sand same ists of	

### A test card consists of:

A plastic shell and a reagent strip which is composed of a sample pad, a colloid gold pad (coated with gold-labelled antihuman cTnI monoclonal antibody), nitrocellulose membrane (the test line is coated with anti-human cTnI monoclonal antibody, and the control line is coated with rabbit anti-mouse IgG antibody), absorbent paper and liner.

### Whole blood buffer composition:

Phosphate buffered saline, proteins, detergent, preservative, stabilizer.

Note: Do not mix or interchange different batches of kits.

### STORAGE AND STABILITY

Store the test card at  $4 \sim 30^{\circ}$ C with a valid period of 24 months. Use the test card within 1 hour once the foil pouch is opened. Store the whole blood buffer at  $0 \sim 30^{\circ}$ C with a valid period of 24 months.

Store the whole blood buffer at 2~8°C for better results.

### PRECAUTIONS

- 1. For in vitro diagnostic use only.
- 2. For professional use only.
- 3. Do not use the kit beyond the expiration date.
- 4. Do not use the test card if the foil pouch is damaged.
- 5. Do not open pouches until ready to perform the test.
- 6. Do not reuse the test card.
- 7. Do not reuse the pipet.
- 8. Handle all specimens as potentially infectious. Proper handling and disposal methods should be followed in accordance with local regulations.
- 9. Carefully read and follow user manual to ensure proper test performance.

### SPECIMEN COLLECTION AND PREPARATION

- This test can be used for serum, plasma or whole blood samples. Heparin, EDTA or sodium citrate should be used as the anticoagulant for plasma and whole blood. Samples should be free of hemolysis.
- 2. Suggest using serum or plasma for better results.
- 3. Serum or plasma can be used directly. For whole blood sample, whole blood buffer must be added before testing.
- 4. If testing will be delayed, serum and plasma samples may be stored up to 7 days at 2~8°C or stored at -20°C for 6 months before testing (whole blood sample may be stored up to 3 days at 2~8°C).

- Refrigerated or frozen sample should reach room temperature and be homogeneous before testing. Avoid multiple freezethaw cycles.
- 6. Do not use heat-inactivated samples.
- 7. SAMPLE VOLUME: 80 µl.

### **TEST PROCEDURE**

- 1. Collect specimens according to user manual.
- 2. Test card, sample and reagent should be brought to room temperature before testing.
- Remove the test card from the sealed pouch immediately before use. Label the test card with patient or control identification.
- 4. Put the test card on a clean table, horizontally placed.
- 5. Using sample transfer pipette, deliver 80 µl of sample (or 3 drops of sample when using disposable pipet) into the sample port on the test card (for whole blood sample, one drop of whole blood buffer must be added after loading 80 µl sample on the test card).
- Read the results visually in 15 minutes. For semiquantitative interpretation of results, please refer to the standard colorimetric card.

### **TEST RESULTS**

**Negative:** A single purplish red band appears at the control area (C) without any other band at test line is a valid negative result, indicating the concentration of cTnI in the sample is below the cut-off value.

**Positive:** A single purplish red band appears at the control area (C) and a purplish red colored band appears in test line is a valid positive result. The intensity of the purplish red color in the test line helps to read the semi-quantitative result visually according to the standard colorimetric card:

Color intensity	Reference Concentration (ng/ml)
_	<0.3
+ -	0.3~1
+	1~5
++	5~15
+++	15~30
++++	30~50
++++	>50

**Invalid:** If no colored band appears in the control area (C) in 15 minutes, the test result is invalid. The test should be repeated and if the same situation happened again, please stop using this batch of products and contact your supplier.

### **EXPECTED VALUE**

The expected normal value for Troponin I was determined by testing samples from 500 apparently healthy individuals. The 99th percentile of the concentration for cTnI is 0.3 ng/ml, (The probability that value of a normal person below 0.3 ng/ml is 99%). cTnI concentration less than 0.3 ng/ml can be estimated as normal.

It is recommended that each laboratory establish its own expected values for the population it serves.

### LIMITATIONS

As with all diagnostic tests, a definitive clinical diagnosis should not be made based on the result of a single test. The test results should be interpreted considering all other test results and clinical information such as clinical signs and symptoms.

### REFERENCES

- Mauro Pantaghini; Undefined International Federation of Clinical Chemistry and Laboratory Medicine (IFCC). Scientific Division Committee on Standardization of Markers of Cardiac Damage. Clin Chem Lab Med, 1998, 36:887~893.
- Antman EM, Anbe DT, Armstrong PW, et al. ACC/AHA guidelines for the management of patients with ST-elevation myocardial infarction: a report of the American College of Cardiology/American Heart Association Task Force on Practice Guidelines (Committee to Revise the 1999 Guidelines for the Manage 2004).
- EN ISO 18113-1:2011 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part 1: Terms, definitions and general requirements.
- EN ISO 18113-2:2011 In vitro diagnostic medical devices -Information supplied by the manufacturer (labelling) - Part
   In vitro diagnostic reagents for professional use (ISO18113-2:2011).

### DESCRIPTION OF SYMBOLS USED

The following graphical symbols used in or found on Cardiac Troponin I Fast Test Kit are the most common ones appearing on medical devices and their packaging. They are explained in more details in the European Standard EN 980:2008 and International Standard ISO 15223 – 1: 2012.

	Key to symbols used				
	Manufacturer		Expiration date		
$\textcircled{\label{eq:linear}{e$	Do not reuse	~~	Date of manufacture		
Ĩ	Consult instructions for use	LOT	Batch code		
X	Temperature limitation	IVD	<i>In vitro</i> diagnostic medical device		
$\overline{\mathbb{V}}$	Sufficient for	EC REP	Authorized representative in the European Community		
CE	CE mark	8	Do not use if package is damaged		

Thank you for purchasing Cardiac Troponin I Fast Test Kit. Please read this user manual carefully before operating to ensure proper use.

Version: WCG01A-DX-S-02



IVD Industry POCT Leading Brand



- PREMIUM POINT OF CARE SOLUTION -







### Highlights

- Portable Design Small in size (250 x 250 x 120mm); Light in weight (1.8kg)
- Multiplex Test Items Cardiac; Inflammation monitoring; Diabetes mellitus; Fertility; Renal function etc.
- Easy to Use Ready-to-use cassette, one-step test, automatic print, quantitative result
- Reliable Performance  $CV \leq 1\%$ ; r  $\geq 0.990$
- LIS and HIS Connectivity

### **Test Items**

CARDIAC	cTnl	NT-proBNP	NT-proBNP/cTn	1	CK-MB/cTnl/Myo			
	H-FABP	CK-MB/cTnI/H-FABP						
VENOUS THROMBO	EMBOLISM	D-Dimer						
INFLAMMATION MONITORING		hs-CRP	PCT					
DIABETES CARE		HbA1c						
FERTILITY		HCG+β						
RENAL FUNCTION		β2-MG	mAlb	CysC	NGAL			

### Machine Application Department

The analyzer can be widely applied to clinical departments including Cardiology Dept., Clinical Laboratory, Emergency Dept., ICU, Oncology Dept., Nephrology Dept., Pediatrics Dept., Endocrinology Dept., Gynecology Dept., Respiratory Dept., Gastroenterology Dept., Urology Dept. etc.

### **Flexible Operation Modes**

### Inside Mode (Automatic Timing)









Sample dispense

Test card insert

Press "ENT" button

Result printed automatically after reaction

### Outside Mode (Manual Timing)









Sample dispense

Timing the reaction manually

Test card insert

Result printed automatically in 5-8s

### **Technical Data**

Assay Method	Lateral Flow Chromatography (Colloidal Gold)				
Test Result	Quantitative				
Language	Chinese/English/German/Sp (French,Russian,Arabic,Vietr	anish/Serbian namese etc. are under developing)			
Display	5.6 Inch Touch Screen; Resolution 640×480				
Printer	Internal Thermal Printer				
Working Environment	Temperature Relative humidity Air pressure	+15 °C - 35 °C 10% - 85% 70.0kPa - 106.0kPa			
Power Supply	AC 100~240V, 50~60 Hz				
Data Storage	10,000 results can be saved				
Dimensions	Height Width Length	120mm 250mm 250mm			
Weight					

C)

### FIA8000 Parameters

Cat.#	Test Item	Disease	Measuring Range	Sample	Cut-off Value	Reaction Time
CG 1001	cTnl	Myocardial infarction	0.5~50.0ng/ml	S/P/W.B	0.5ng/ml	15min
CG 1002	NT-proBNP	Heart failure	100~35000pg/ml	S/P/W.B	300pg/ml	15min
CG 1003	hs-CRP	Cardiovascular inflammatory diseases; Inflammatory disorders	0.5~200mg/L	S/P/W.B/ Fingertip blood	3mg/L 10mg/L	90s
CG 1004	NT-proBNP /cTnl	Heart failure; Acute coronary syndrome	100~12000pg/ml 0.5~50.0ng/ml	S/P/W.B	300pg/mj 0.5ng/ml	18min
CG 1005	CK-MB /cTnl /Myo	Myocardial injury	2.5~80.0ng/ml 0.5~50.0ng/ml 30~1000ng/ml	S/P/W.B	5ng/ml 0.5ng/ml 70ng/ml	15 min
CG 1006	D-Dimer	Venous thromboembolism; Pulmonary embolism	0.1~10.0mg/L	P/W.B	0.5mg/L	7min
CG 1007	PCT	Sepsis; Septic shock	0.1~50ng/ml	S/P/W.B	0.1ng/mJ	15min
CG 1008	CysC	Early diagnosis of kidney disease; Detection of kidney damage for surgery patients	0.5~10.0mg/L	S/P/W.B	0.51~1.09 mg/L	3min
CG 1009	mAlb	Early diagnosis and evaluation of diabetic nephropathy	10~200mg/L	Urine	20mg/L	3min
CG 1010	NGAL	The best indicator of early renal injury	50~5000ng/ml	S/Urine	Serum:200ng/ml Urine:100ng/ml	3min
CG 1011	β 2 - MG	Kidney damage for diabetic & hypertensive patients	0.5~20.0mg/L	S/P/W.B	0.8~3.0 mg/L	3min
CG 1012	CK-MB /cTnl	Myocardial injury	2.5~80.0ng/ml 0.5~50.0ng/ml	S/P/W.B	5ng/ml 0.5ng/ml	15min
CG 1013	HCG+β	Pregnancy early test	5~10000mIU/mI	S/P/W.B	5.1mIU/mI	10min
CG 1017	HbA1c	Diabetes mellitus	2%~14%	W.B	3.8%~5.8%	3min
CG 1018	CK-MB	Myocardial injury	2.5~80.0ng/ml	S/P/W.B	5ng/ml	15min

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# Getein Biotech, Inc.

Stock Code: 603387

### **OPTIMIZED POINT-OF-CARE SOLUTION**



# Getein1100

Immunofluorescence Quantitative Analyzer

÷ģ Inflammation Thyroid Function









# **HIGHLY EFFICIENT & ACCURATE**

Advanced fluorescence immunoassay

Multiple quality control

One-step test

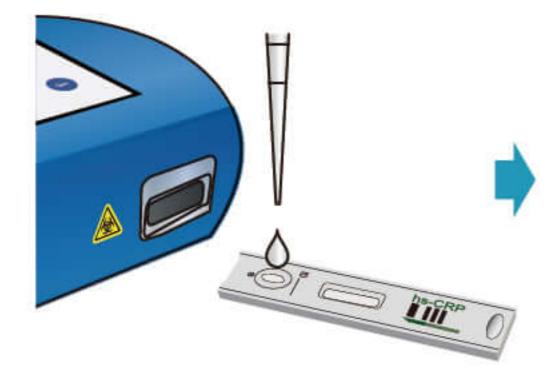
3-15 min/test

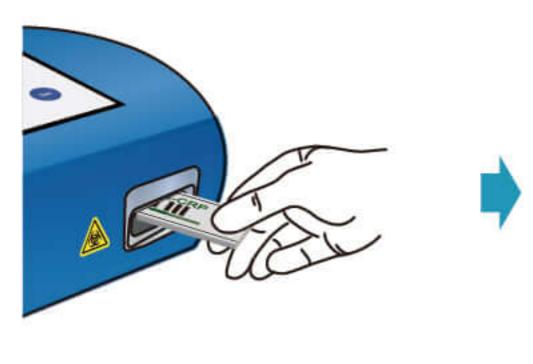
5 sec/test for multiple tests

**REAL-TIME AND RAPID TEST** 

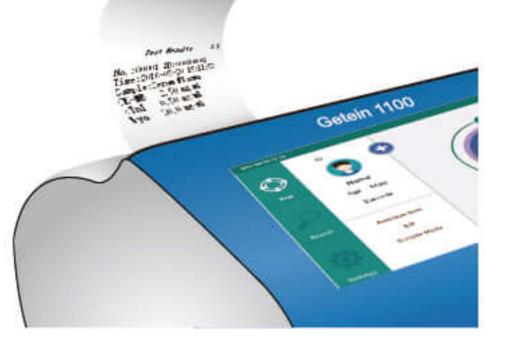
# **OPERATION MODES**

### Inside Mode (single sample rapid test mode)

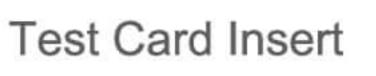








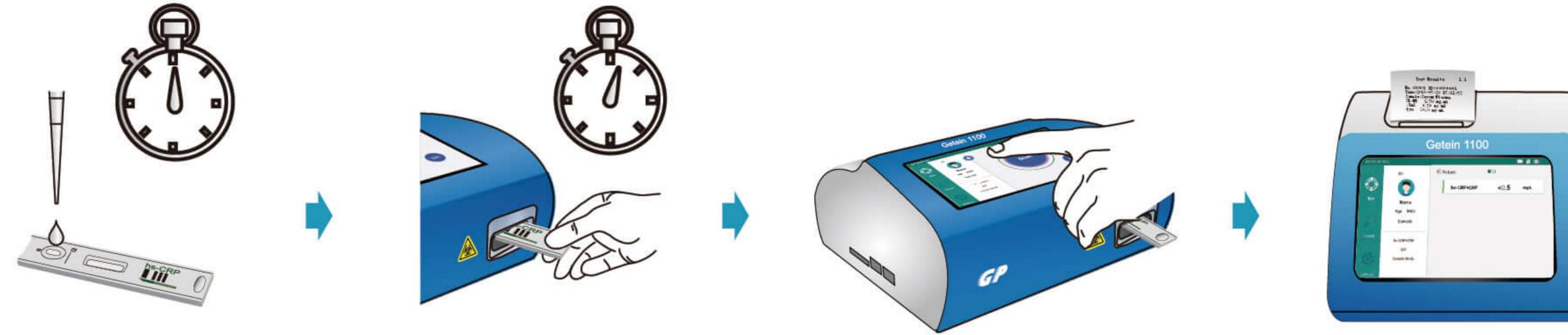
Sample Dispense

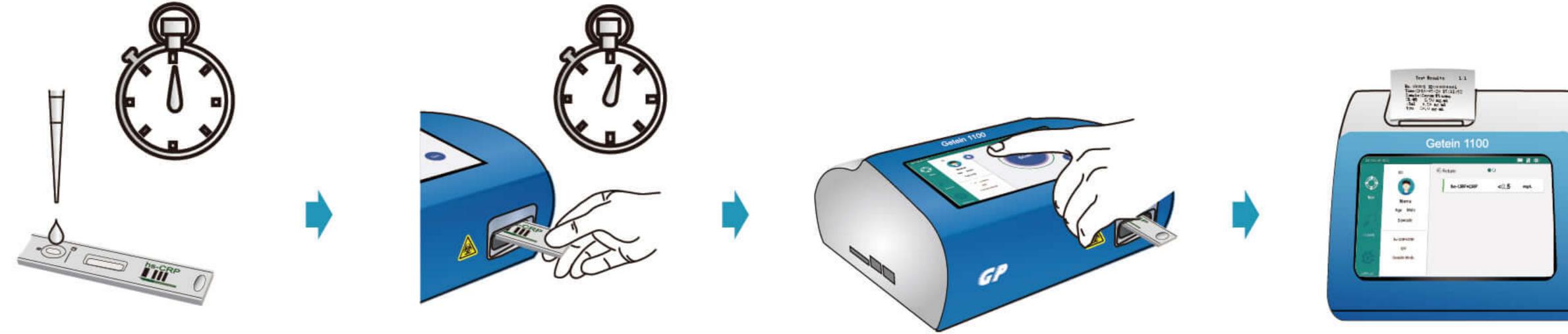


Click "Start" Icon

Result Show and Print

Quick mode (mass samples rapid test mode)





### Sample Dispense Timing the Reaction Manually Click "Start" Icon Result Show and Print







# **CONVENIENT OPERATION**

**RFID** card calibration

Keyboard and mouse connectivity through USB port

Handwriting input available

Continuous test for 3 hours with lithium battery



# **USER-FRIENDLY INTERFACE**

Android system

7 inch touch screen

# **FRONT VIEW**

**SD Card Slot** 

### **SD Recognition Zone**

### **Display Screen**

7-inch LCD Touch Screen Resolution: 1024×600



31.94

20

NJ North Inter Main Part Main Part Main Part Main

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# **PORTABLE DESIGN**

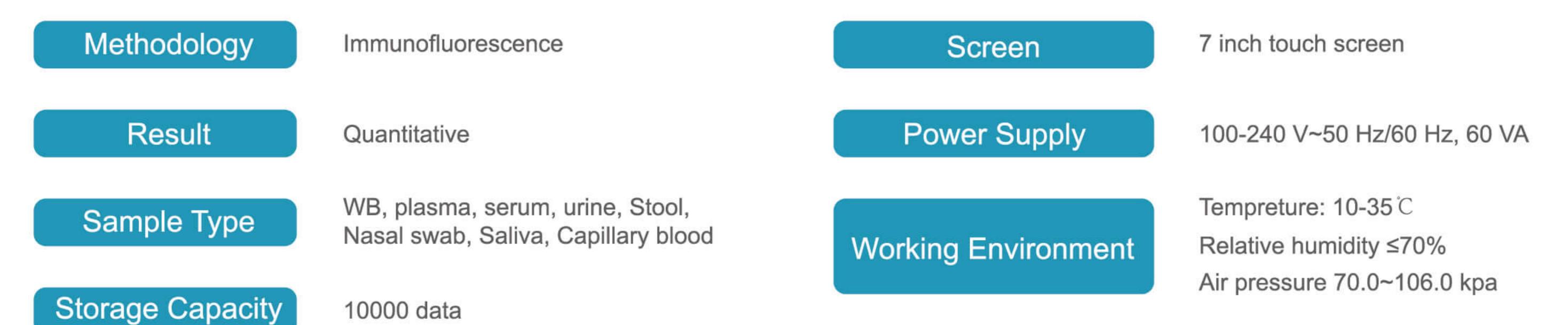
Small in size: 261 ×241 ×115 mm

Light in weight: 2.0 kg

### LARGE MEMORY

Up to 10,000 results storage capacity

# **TECHNICAL PARAMETERS**





### Dimension

Weight

261 mm×241 mm×115 mm (D×W×H)

2.0 kg



### English/Chinese/Spanish/Portuguese

# **TEST ITEMS**

Cat. #	TEST ITEMS	DISEASES	CUT-OFF VALUE	SAMPLE TYPES	MEASURING RANGE	SAMPLE VOLUME	REACTION TIME	QUALIFIC	ATION
Cardia	ac Markers								
IF1001	cTnl	Myocardial infarction	0.1 ng/mL	S/P/WB	0.1-50.0 ng/mL	100 µL	10 min	NMPA	CE
IF1089	BNP	Heart failure	100.0 pg/mL	P/WB	5.0-5000.0 pg/mL	100 µL	10 min	NMPA	CE
IF1002	NT-proBNP	Heart failure	300 pg/mL	S/P/WB	100-35000 pg/mL	100 µL	10 min	NMPA	CE
IF1005	CK-MB/cTnl/Myo	Myocardial damage /infarction	CK-MB: 5.0 ng/mL cTnl: 0.1 ng/mL Myo: 70 ng/mL	S/P/WB	2.5-80.0 ng/mL 0.1-50.0 ng/mL 30.0-600.0 ng/mL	100 µL	10 min	NMPA	CE
IF1012	CK-MB/cTnl	Myocardial damage /infarction	CK-MB: 5.0 ng/mL cTnl: 0.1 ng/mL	S/P/WB	2.5-80.0 ng/mL 0.1-50.0 ng/mL	100 µL	10 min	CE	
IF1014	H-FABP	Myocardial damage	6.36 ng/mL	S/P/WB	1.0-120.0 ng/mL	100 µL	3 min	NMPA	CE
IF1016	CK-MB/cTnl/H-FABP	Myocardial damage /infarction	CK-MB: 5.0 ng/mL cTnl: 0.1 ng/mL H-FABP: 6.36 ng/m	S/P/WB	2.5-80.0 ng/mL 0.1-50.0 ng/mL 2.0-100.0 ng/mL	100 µL	10 min	NMPA	CE
IF1018	CK-MB	Myocardial injury	5.0 ng/mL	S/P/WB	2.5-80.0 ng/mL	100 µL	10 min	CE	
IF1078	ST2	Heart failure	35.0 ng/mL	S/P/WB	3.1-200.0 ng/mL	100 µL	10 min	CE	
Coagu	ulation Markers								
IF1006	D-Dimer	Venous thromboembolism	0.5 mg/L	P/WB	0.1-10.0 mg/L	100 µL	10 min	NMPA	CE
Inflam	mation								
IF1003	hs-CRP+CRP	Cardiovascular inflammation /normal inflammation	3 mg/L 10 mg/L	S/P/WB/ Fingertip blood	0.5-200 mg/L	10 µL	3 min	NMPA	CE
IF1007	PCT	Sepsis, bacterial infection	0.1 ng/mL	S/P/WB	0.1-50.0 ng/mL	100 µL	15 min	NMPA	CE
IF1015	PCT/CRP	Sepsis, bacterial infection	PCT: 0.1 ng/mL CRP: 3.0 mg/L	S/P/WB	0.1-50.0 ng/mL 0.5-200.0 mg/L	100 µL	15 min	NMPA	CE
IF1044	SAA	Bacterial/Virus infection	10.0 mg/L	S/P/WB/ Fingertip blood	5.0-200.0 mg/L	10 µL	5 min	NMPA	CE
IF1090	SAA/CRP	Neonatal sepsis, Bacterial/virus infection	SAA: 10.0 mg/L CRP: 10.0 mg/L	S/P/WB/ Capillary blood	5.0-200.0 mg/L 0.5-200.0 mg/L	10 µL	5 min	NMPA	CE
IF1088	IL-6	Acute inflammation	7.0 pg/mL	S/P/WB/ Peripheral blood	1.5-4000.0 pg/mL	100 µL	15 min	CE	
Renal	Function								
IF1008	CysC	Acute and chronic renal diseases	0.51-1.09 mg/L	S/P/WB	0.5-10.0 mg/L	10 µL	3 min	NMPA	CE
IF1009	mAlb	Diabetic nephropathy, hypertensive nephropathy	20.0 mg/L	Urine	10.0-200.0 mg/L	100 µL	3 min	NMPA	CE
IF1010	NGAL	Acute kidney injury	Serum: 200 ng/mL Urine: 100 ng/mL	S/Urine	50-5000 ng/mL	10 µL	10 min	NMPA	CE
IF1011	β <sub>2</sub> -MG	Acute and chronic kidney diseases/tumours	0.8-3.0 mg/L	S/P/WB	0.5-20.0 mg/L	10 µL	3 min	NMPA	CE
Diabe	tes Mellitus								
IF1017	HbA1c	Diabetes mellitus	3.8%-5.8%	WB	2%-14%	10 µL	5 min	NGSP N IFCC	
Metab	olic Marker								
IF1031	25-OH-VD	Osteomalacia, osteoporosis	30.0-50.0 ng/mL	S/P	8.0-70.0 ng/mL	40 µL	15 min	NMPA	CE
Thyroi	id Function								
IF1024	TSH	Thyroid malfunction	0.27-4.20 µIU/mL	S/P	0.10-50.00 µIU/mL	100 µL	15 min	NMPA	CE
IF1022	Т3	Hyperthyroidism, hypothyroidism	1.30-3.10 nmol/L	S/P	0.30-10.00 nmol/L	40 µL	15 min	CE	
IF1023	T4	Hyperthyroidism, hypothyroidism	59.0-154.0 nmol/L	S/P	5.4-320.0 nmol/L	40 µL	15 min	CE	
	fT3	Hyperthyroidism, hypothyroidism	3.1-6.8 pmol/L	S/P	0.4-50.0 pmol/L	100 µL	15 min	CE	
IF1067		hypothyroldisin							

Cat. #	TEST ITEMS	DISEASES	CUT-OFF VALUE	SAMPLE TYPES		SAMPLE VOLUME	REACTION TIME	QUALIFICATION
Repro	oroduction/Fertility							
IF1013	HCG+β	Fertility	5.1 mIU/mL	S/P	5-100000 mIU/mL	100 µL	10 min	NMPA CE
IF1055	LH	Homeostasis fertility regualtion	Refer to User Manual	S/P	0.2-150.0 mIU/mL	100 µL	15 min	CE
IF1056	FSH	PCOS, infertility evaluation and pituitary disorders	Refer to User Manual	S/P	0.2-150.0 mIU/mL	100 µL	15 min	CE
IF1066	AMH	Fertility, PCOS, gonadal function, precocious/late puberty	Refer to User Manual	S/P	0.10-20.00 ng/mL	200 µL	15 min	CE
IF1048	PRL	Infertility, gonadal disorders	Refer to User Manual	S/P	0.50-200.0 ng/mL	100 µL	15 min	CE
IF1071	Prog	Infertility, evaluation of ovulation	Refer to User Manual	S/P	0.10-40.00 ng/mL	100 µL	15 min	CE
Tumor	· Markers							
IF1053	tPSA	Prostate cancer	4.0 ng/mL	S/P	0.50-100.00 ng/mL	100 µL	15 min	
IF1072	fPSA	Prostate cancer	1.0 ng/mL	S/P	0.10-30.00 ng/ml	100 µL	10 min	
IF1050	AFP	Liver cancer, cancer of ovaries or testicles, etc.	7.0 ng/mL	S/P	2.0-500.0 ng/mL	100 µL	15 min	CE
IF1051	CEA	Cancer marker: colon cancer etc.	4.7 ng/mL	S/P/WB	2.0-500.0 ng/mL	100 µL	15 min	CE
Infecti	ous Disease							
IF1057	Anti-HCV	Hepatitis C	1 S/CO	S/P	1.00-20.00 S/CO	100 µL	15 min	
IF1058	Anti-TP	Syphilis	1 S/CO	S/P	1.00-50.00 S/CO	100 µL	15 min	CE
IF1059	Anti-HIV	AIDS	1 S/CO	S/P	1.00-1000.00 S/CO	100 µL	15 min	
IF1064	HBsAg	Hepatitis B	1 IU/mL	S/P	1.00-100.00 IU/mL	100 µL	15 min	
IF1063	Anti-HBs	Hepatitis B	10.00 mIU/mL	S/P/WB	10.00-1000.00 mIU/ml	_100 μL	15 min	
IF1084	2019-nCoV lgM/lgG	COVID-19	1 COI	S/P/WB		100 µL	10 min	CE
<sup>#</sup> IF1091	SARS-CoV-2 Antigen	COVID-19	1 COI Nas	al swab/Sali	va	100 µL	15 min	CE
MIF1092	SARS-CoV-2 Total Antibody/ Neutralizing Antibody	COVID-19	Refer to User Manual	S/P/WB		100 µL	10 min	CE
IF1095	SARS-CoV-2 Neutralizing Antibody	COVID-19	Refer to User Manual	S/P/WB		100 µL	10 min	
IF1047	H. pylori	H. pylori infection	5 ng/mL	Stool	1-200 ng/mL	150 mg	10 min	CE
Others	5							
IF1077	Ferritin	Anemia/tumors	Male: 30-400 ng/mL Female: 13-150 ng/mL	S/P	0.50-2000.00 ng/mL	100 µL	15 min	CE
<sup>M</sup> IF1069	Total IgE	Allergic disorders	Refer to User Manual	S/P/WB	1.00-2000.00 IU/mL	100 µL	15 min	CE

Coming Soon: FOB, ASO, RF, anti-CCP, Folate...



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