

# **EXPLORE FIBRINOLYSIS** WITH GFC/LYSIS TIMER

Investigate the global body's fibrinolytic capacity by testing a plasma clot obtained by coagulation with thrombin and calcium in presence of silica and a defined amount of exogenous tissue plasminogen activator (tPA).

- Results within less than 1 hour<sup>(4)</sup>
- Compact and lightweight device
- Connectable to any computer
- Easy reading
- color code on device
- Fibrinolysis curve, displayed on screen
- Use of standard citrate plasma
- Low sample volume required: 100µL
- Sample can be taken and processed at room temperature
- Ouick interpretation of Lysis Timer results with software
- Data processing
- Report creation

### **References:**

- (1) Amiral J, Laroche M, Seghatchian J. A New Assay for Global Fibrinolysis Capacity (GFC) : investigating a critical system regulating hemostasis and thrombosis and other extravascular functions. Transfus Apher Sci (2018); 57: 118-126.
- (2) Rijken DC, Hoegee-de-Nobel E, Jie AF, Atsma DE, Schalij MJ, Nieuwenhuizen W. Development of a new test for the global fibrinolytic capacity in whole blood. J Thromb Haemost (2008); 6:151-7.
- (3) Roullet S, Labrouche S, Mouton C, Quinart A, Nouette-Gaulain K. Laurent C, Freyburger G. Lysis Timer : a new sensitive tool to diagnose hyperfibrinolysis in liver transplantation. J Clin Pathol (2018);0:1-8.
- (4) Roullet S, Weinmann L, Labrouche S, Gisbert-Mora C, Biais M, Revel P, Freyburger G. Fibrinolysis in trauma patients : wide variability demonstrated by the Lysis Timer. Scand J clin Lab Invest (2019); 79: 136-142.
- (5) Cesarman-Maus G1, Hajjar KA. Molecular mechanisms of fibrinolysis. Br J Haematol, 2005/5; 129(3) : 307-21.
- (6) C. Longstaff, K. Kolev. Basic mechanisms and regulation of fibrinolysis. Journal of Thrombosis and Haemostasis 2015.13(Suppl. 1): S98-S105.
- (7) Hudson NE. Biophysical Mechanisms Mediating Fibrin Fiber Lysis. May 2017 BioMed Research International 2017(3):1-17.

# To be completed now with your publications using GFC/Lysis Timer

#### For Research Use Only.

Read carefully the instructions in the system user manual and on the labeling and/or instructions for use of the reagent. Reagent manufactured by HYPHEN BioMed a Sysmex Group Company. Test details, information or availability varies according to country. Lysis Timer device and software produced by SD Innovation S.A.S. for HYPHEN BioMed. ©2024 HYPHEN BioMed. All rights reserved. All trademarks are the property of HYPHEN

BioMed unless otherwise specified. Sysmex is a trademark of Sysmex Corp. All other trademarks and brands are the property of their respective owners. Local distributors' list on www.hyphen-biomed.com too.



A Sysmex Group Company 155 rue d'Eragny

France

Technical support: 95000 Neuville-sur-Oise techsupport@hyphen-biomed.com www.hyphen-biomed.com



# **GFC IN VITRO ASSAY /** LYSIS TIMER DEVICE

Assess, Quickly and Efficiently, the body's Global Fibrinolytic Capacity



# **FAST, EASY AND** SUCCESSFUL RESULTS

The many implications of fibrinolysis in human physiology demonstrate how critical this system is for the integrity of life and for the right balance of many biological functions<sup>(1, 5-7)</sup>.

Until now, it has always been time-consuming, difficult and incomplete to explore fibrinolysis.

Today, the Lysis Timer (LT) instrument, paired with the GFC reagents, can fill this gap by providing fast and reliable results.







## **DESIGNED FOR EARLY DETECTION**

The Lysis Timer (LT) is a handheld device, recently optimized by HYPHEN BioMed to evaluate the body's global fibrinolytic capacity (GFC)<sup>(1-2)</sup> in citrated plasma. The GFC/LT method has the advantage to provide results in less than 1 hour and provides better performances than viscoelastic tests<sup>(3)</sup>.



# EVALUATE, QUICKLY AND FRIENDLY, THE FIBRINOLYSIS POTENTIAL WITH GFC/LYSIS TIMER

Device

Photometer permits the real-time follow-up of light transmittance (900nm wavelength) in independent tubes thermostated at 37°C.



### Software

The intuitive software interface allows real-time monitoring of the derivation curve: the Lysis Time.

sis Timer

### **GFC reagent & Control**

**Stability of GFC-test and GFC control** plasmas after reconstitution give a great work flexibility:

- 24 hours at 2-8°C
- 8 hours at 18-25°C
- 1 month at -20°C for GFC-test
- 2 months at -20°C for GFC control.

Clear, rapid, identification of the different fibrinolytic states shown by representative GFC Control Plasmas. Delta Clot Lysis Time:

Mean Normal GFC - Control	Mean Hyper-fibrinolysis Control	≥	15 min.	
Mean Hypo-fibrinolysis - Control	Mean Normal GFC Control	≥	20 min.	

### **A TURNKEY RESEARCH SOLUTION**

### For high performance and reliable results

### Precision

Excellent reproducibility over time for the GFC-Test and GFC Control Plasmas, evidenced by low inter- and intra-test coefficients of variation (< 5 %).

### GFC-Test Reagent CK093K

	Precision inter-assay		Precision intra-assay		
Sample	Mean (min)	CV (%)	Mean (min)	CV (%)	
Hyper-fibrinolysis	15	3,70%	16	2,80%	
Normal GFC	44	3,80%	38	4,40%	
Hypo-fibrinolysis	82	3,70%	77	4,20%	

### **GFC Control SC104K**

	Precision i	nter-assay	Precision intra-assay		
Sample	Mean (min)	CV (%)	Mean (min)	CV (%)	
Hyper-fibrinolysis	16	2,70%	17	3,10%	
Normal GFC	39	3,20%	39	3,90%	
Hypo-fibrinolysis	77	4,20%	77	3,40%	

### Performances

Examples of Lysis kinetics curves obtained: 30-60 minutes for normal plasmas (*fig. 2*); < 30 minutes for hyper-fibrinolytic plasmas (*fig. 1*) and > 60 minutes for hypo-fibrinolytic plasmas (*fig. 3*).





BE THE FIRST TO OFFER A VALUE-ADDED PACKAGE TO YOUR LAB



Kits, instrument and software for the evaluation of the body's Global Fibrinolytic Capacity (GFC) for laboratory, research and applications.

### Device

Product name	Lysis Timer	14444444	
Regulatory Status	RUO	Lysis Timer	
Reference	LT-8V* (CE power adapter and USB cable included)		
Software	Provided		
Presentation	8 Independent measurement channels		
	Handheld device		
	Photometric method		

 $^{\ast}$  For connection plugs specific to your country, please contact your distributor.

#### Reagent

<u> </u>			
Product name	GFC-Test		
Regulatory Status	RUO	14 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Pro-Test
Reference	СК093К		
Durantation	R1 - tPA with silica		3 x 2 mL
Presentation	R2 - Thrombin reagent		3 x 2 mL
Number of determinations	60		

### Controls

Product name	GFC Control Plasmas		
Regulatory Status	RUO		
Reference	SC104K		
Presentation	C1 - Hyper-fibrinolysis Con	2 x 1 mL	
	C2 - Normal GFC Control	2 x 1 mL	
	C3 - Hypo-fibrinolysis Con	2 x 1 mL	
Number of determinations	20		