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[4]
- 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
- Quick 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. 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.
Local distributors' list on **www.hyphen-biomed.com** too.

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HBMLeafletGFC/LysisTimer052022 - PASAYA - Photo Credit: Shutterstock, iStock

GFC IN VITRO ASSAY / LYSIS TIMER DEVICE

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

HYPHEN BioMed
A Sysmex Group Company

FAST, EASY AND SUCCESSFUL DIAGNOSIS

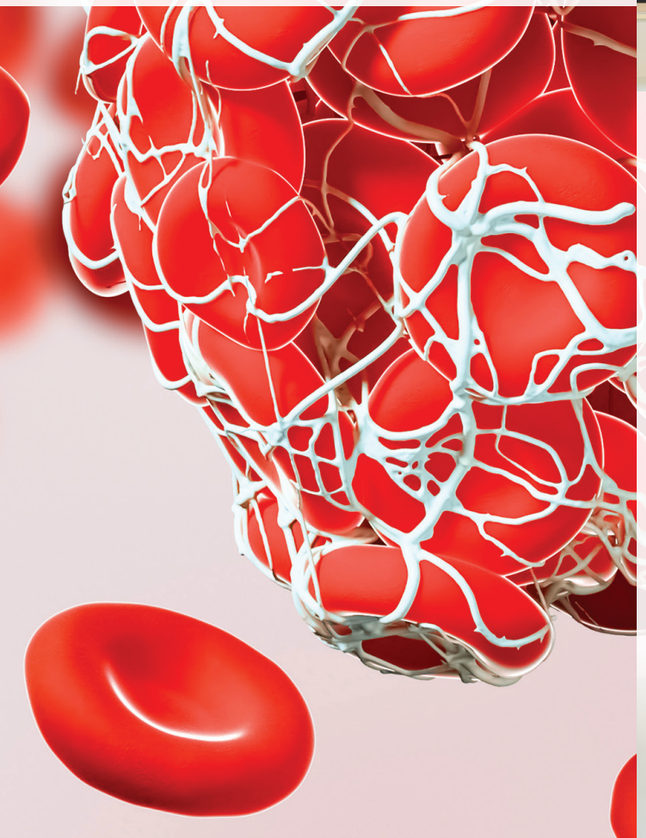
The many implications of fibrinolysis in human physiology demonstrate how critical this system is for the integrity of life and for the right balance of many biological functions[1, 5-7].

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)[1-2] 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[3].



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.

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 inter-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)*.

Fig. 1
Hyper-fibrinolysis (< 30 min)

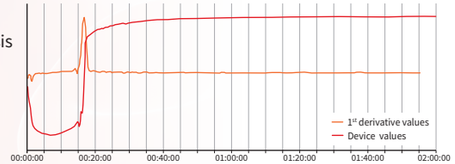


Fig. 2
Normal Fibrinolysis time (30 to 60 min)

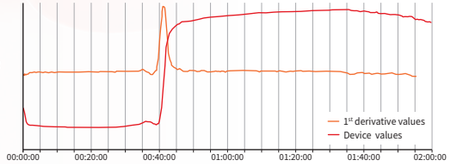
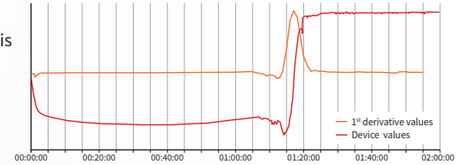


Fig. 3
Hypo-fibrinolysis (> 60 min)



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
Regulatory Status	RUO
Software	Provided
Presentation	8 Independent measurement channels
	Handheld device
	Photometric method

Reagent

Product name	GFC-Test	
Regulatory Status	RUO	
Reference	CK093K	
Presentation	R1 - tPA with silica	3 x 2 mL
	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 Control	2 x 1 mL
	C2 - Normal GFC Control	2 x 1 mL
	C3 - Hypo-fibrinolysis Control	2 x 1 mL
Number of determinations	20