BioCLIA Autoimmune Calibrator Set, β2 Glycoprotein 1 Screen

Cat.No.	Kit Size
MY00229	2 X 1 mL
MY00280	4 X 1 mL

INTENDED USE

The BioCLIA Autoimmune Calibrator Set, β2 Glycoprotein 1 Screen is intended for the calibration of the BioCLIA β2 Glycoprotein 1 Screen performed on the BioCLIA 6500 and BioCLIA 500.

For professional *in vitro* diagnostic use only.

SUMMARY AND EXPLANATION

β-2 glycoprotein I (or called apolipoprotein H) antigens are plasma proteins existing free or bound to low density lipoprotein. They act as an auxiliary factor for cardiolipin and anti-cardiolipin antibody combination. [1, 2] In autoimmune disease, anti-β-2 glycoprotein I antibodies, also called anti-apolipoprotein H (AAHA) antibodies, comprise a subset of anti-cardiolipin antibodies and lupus anticoagulant.

These antibodies are involved in sclerosis and are strongly associated with thrombotic forms of lupus, as a result they are strongly implicated in autoimmune deep vein thrombosis. [3] About 30-60% anti-phospholipid syndrome (APS) patients are anti-β-2 glycoprotein I antibodies positive. They are also closely associated with thrombosis. Determination of anti-β-2 glycoprotein I antibodies can significantly increase the prediction rate of thrombosis complications. [4] As these antibodies only appear in autoimmune disease patients, they are regarded as autoimmune thrombus markers to distinguish autoimmune diseases and infectious diseases. [5] Anti-β-2 glycoprotein I antibodies have a specificity of 98% while anti-cardiolipin antibodies (aCL) of 75% for APS diagnosis; however, the sensitivity is only 54% which is lower than the aCL. Besides, concentration of anti-β-2 glycoprotein I antibodies is related to the severity of thrombosis in systemic lupus erythematosus (SLE) patients. [6]

MATERIALS SUPPLIED

- **β2 Glycoprotein 1 Screen Calibrator 1** Barcode labeled tubes with buffer containing human antibodies to β2 Glycoprotein 1 in stabilizers and preservatives. Ready to use, 1 mL.

CAL	1

Preservatives: 0.0015% < Proclin 300 < 0.6%.

- **β2 Glycoprotein 1 Screen Calibrator 2** Barcode labeled tubes with buffer containing human antibodies to β2 Glycoprotein 1 in stabilizers and preservatives. Ready to use, 1 mL.

CAL	2

Preservatives: 0.0015% < Proclin 300 < 0.6%.

The Calibrator Code contains calibrators' information is provided in each kit.

WARNINGS AND PRECAUTIONS

- For professional *in vitro* diagnostic use only.
- Do not use any calibrators beyond their expiration dates.
- Do not mix calibrators from different lots unless specified.
- Instructions must be carefully followed for using and storing of calibrators. Any modification in procedure may interfere with the results.
- Calibrators and contaminated vials must be handled strictly following safety guidelines or rules of biological hazards to ensure the users' and environmental safety.
- Any serious incident that has occurred in relation to the device shall be reported to the manufacturer and the competent authority of the Member State in which the user and/or the patient is established!

Precautions:

 Human serum is added in the calibrators.

- The human derived material in this product was tested by FDA approved methods and found nonreactive for Hepatitis B Surface Antigen (HBsAg), Anti-HCV and HIV 1/2 antibodies. Handle as if potentially infectious. [7] Avoid contacting with skin and eyes. Do not empty into drains. Wear suitable protective gloves and clothing.

- Proclin 300 is added in the calibrators at concentration between 0.0015% - 0.6%.
- Calibrators contain chemical and biological components. Avoid ingesting or splashing onto skin and mucous membrane. If direct contact with calibrators happens, rinse immediately the contact surface with plenty of water and see a doctor if necessary.

STORAGE CONDITIONS

- Store the kit at 2-8 °C.
- The shelf life of the unopened kit is 12 months from day of production.
- Vial opened calibrators could be used for 28 successive days, exposure no more than 2 hours each time when kept uncapped and is good for up to 20 calibrations, after which the reagent must be discarded.
- Avoid repeated freezing and thawing.

ASSAY PROCEDURE

Detailed information about operating the BioCLIA instruments can be taken from the Instrument User's Manual.

Note that, it is important to perform all routine maintenance procedures for optimal performance.

Assay Calibration

The BioCLIA Autoimmune Reagent Kit utilizes a predefined lot specific Master Curve which is uploaded into the instrument via the barcode provided in the main reagent kit. The Calibrator Code contains calibrator information is then scanned. Based on the results of running two calibrators, the instrument specific Working Calibration Curve is generated and is used to calculate the concentration from the RLU obtained for each patient.

For each new lot of reagent, please calibrate prior to the first time use, and every 28 days thereafter. The software will not allow the lot to be used if the above requirements are not meet.

Programming and Running samples

1. Put the kit into the corresponding position of the reagent chamber of the fully automatic chemiluminescence analyzer. The information of the kit can be uploaded into the instrument system through the scanning of reagent barcode, and can also be set through the supporting software of the instrument.
2. The information of calibrator / quality control is identified by scanning the calibrator / control barcodes, and the position of calibrator / quality control is assigned in the instrument system.
3. The sample to be tested is placed on the instrument sample rack chamber, and the corresponding test information is edited through the instrument supporting software.
4. Start the operation procedure, and all calibrator / quality control / sample processing steps will be automatically executed.

TRACEABILITY

The reported values were determined over multiple runs on the BioCLIA 6500 and BioCLIA 500 using specific lots of reagents against an in-house standard. DGP IgA results are reported in RU/mL which is interpreted from relative light unit (RLU). Method comparison test showed good sensitivity and specificity of tested assay.

LIMITATIONS

- The calibrators are designed for calibration of the same lot of BioCLIA Autoimmune Reagent Kit.
- The calibrators can be kept uncapped onboard the instrument up to 2 hours for each time of usage. And a total up to 20 calibrations are suggested, for any longer period of time, the reagent should be discarded, otherwise may result in improper calibration of the assay and which can give improper results.

SYMBOLS

CAL 1	Calibrator 1
CAL 2	Calibrator 2

REF	Catalog Number		Use-by date
IVD	In Vitro diagnostic medical device	LOT	Lot Number
+2°C +8°C	Store between +2°C and +8°C		Consult Instruction for Use
	Manufacturer	EC REP	Authorized Representative in the European Community
CE	CE Marking		Contains Sufficient for<n>Tests
	Biological Risk		GHS07 Warning

REFERENCE

1. Sammaritano LR, Gharavi AE, Soberano C, Levy RA, Lockshin MD. Phospholipid binding of antiphospholipid antibodies and placental anticoagulant protein. Journal of clinical immunology 1992;12:27-35.
2. Schousboe I, Rasmussen M. Synchronized inhibition of the phospholipid mediated autoactivation of factor XII in plasma by beta 2-glycoprotein I and anti-beta 2-glycoprotein I. Thrombosis and haemostasis 1995;73:798-804.
3. Viard J, Amoura Z, Bach J. [Anti-beta 2 glycoprotein I antibodies in systemic lupus erythematosus: a marker of thrombosis associated with a circulating anticoagulant]. Comptes rendus de l'Academie des sciences. Serie III, Sciences de la vie 1990;313:607-12.
4. Galli M, Bevers E, Comfurius P, Barbui T, Zwaal R. Effect of antiphospholipid antibodies on procoagulant activity of activated platelets and platelet‐derived microvesicles. British journal of haematology 1993;83:466-72.
5. Hattori N, Kuwana M, Kaburaki J, Mimori T, Ikeda Y, Kawakami Y. T cells that are autoreactive to ß2-glycoprotein I in patients with antiphospholipid syndrome and healthy individuals. Arthritis Rheum 2000;43:65-75.
6. Tsutsumi A, Matsuura E, Ichikawa K, Fujisaku A, Mukai M, Kobayashi S, Koike T. Antibodies to β 2‐glycoprotein I and clinical manifestations in patients with systemic lupus erythematosus. Arthritis & Rheumatism 1996;39:1466-74.
7. Richmond JY, Mckinney RW. Biosafety in microbiological and biomedical laboratories: U.S.GPO. 1999.

CE IVD

HOB Biotech Group Corp., Ltd.
C6 Building, No. 218 Xinghu Road, Suzhou Industrial Park,
Suzhou, Jiangsu, 215123, China

CONTACT INFORMATION:
TEL (+86)512-69561996
Fax (+86)512-62956652
WEBSITE: www.hob-biotech.com
CUSTOMER SERVICE: HOB Biotech Group Co., Ltd
CUSTOMER SERVICE: TEL (+86)4008601202

EC REP

EUROPE REPRESENTATIVE: Emergo Europe
ADDRESS/LOCATION :
Prinsessegracht 20, 2514 AP The Hague, The Netherlands

The eIFU is available on Website:
http://en.hob-biotech.com/usercenter/login.aspx

TECHNICAL ASSISTANCE

For technical assistance, contact your National Distributor.

Date of issue: 17th March 2019

Date of revision: 20th December 2021

Change Control Number: CN21129E

Version: A/1 (EN)