

BioCLIA Autoimmune Calibrator Set, GAD

Cat.No.	Kit Size
MY00244	2 X 1 mL
MY00295	4 X 1 mL

INTENDED USE

The BioCLIA Autoimmune Calibrator Set, GAD is intended for the calibration of the BioCLIA GAD performed on the BioCLIA 6500 and BioCLIA 500.

For professional *in vitro* diagnostic use only.

SUMMARY AND EXPLANATION

Insulin - dependent diabetes mellitus (IDDM), Type 1, is caused by the autoimmune destruction of the beta cells of the pancreas. ^{1, 2} This selective autoimmune pathogenesis causes complete elimination of insulin secretion. The immunological evidence was demonstrated by the presence of specific islet cell autoantibodies in IDDM sera. ³ At least three autoantibodies have been identified against antigenic components of the islet cells in Type 1 diabetics. These autoantibodies are directed specifically to islet cell antigenic component(s), glutamic acid decarboxylase and insulin. ⁴ Glutamic acid decarboxylase (GAD) is the biosynthetic enzyme for the neurotransmitter inhibitor gamma-amino butyric acid, GABA. ⁵ Two forms of GAD, 65 KDa and 67 KDa, are produced by a single gene and are highly homogenous. ^{6, 7} 65-KDa GAD and 67-KDa GAD are identified in brain and islet cells and are differentially expressed in human, rat and mouse pancreas. ⁸ Since diabetes is a chronic autoimmune disease involving beta-cell destruction, early and accurate prediction of the onset of the disease at the preclinical (asymptomatic) stage will help to intervene in the islet cells destruction and to preserve the maximum possible beta-cell mass. The screening of high-risk populations, for all of the three autoantibodies (ICA, IAA and GAD) will help to either prevent or to slow down the onset of the disease. A high-risk (asymptomatic) population, positive for two or more autoantibodies, is vulnerable for developing IDDM, usually in the next 5-7 years. ⁹

MATERIALS SUPPLIED

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



Preservatives: 0.0015% < Proclin 300 < 0.6%.

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



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

	Calibrator 1
	Calibrator 2

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

REFERENCE

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The eIFU is available on Website:

<http://en.hob-biotech.com/usercenter/login.aspx>

TECHNICAL ASSISTANCE

For technical assistance, contact your National Distributor.

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