



Antibody Index Software

**Program for antibody
index evaluation**



Easy to navigate



Intuitive



Accessible from multiple
PCs simultaneously

Intrathecal synthesis of specific antibodies

Intrathecal synthesis of specific antibodies represents an important indicator of immunological activity in the central nervous system (CNS), and its detection is essential for the diagnosis of selected neurological diseases, particularly those of infectious or autoimmune origin, such as neuroborreliosis. To accurately distinguish antibodies produced directly within the CNS from those that pass into it from the peripheral circulation, the calculation of the so-called antibody index (AI) is used.

The antibody index is a parameter that expresses the relationship between the levels of specific

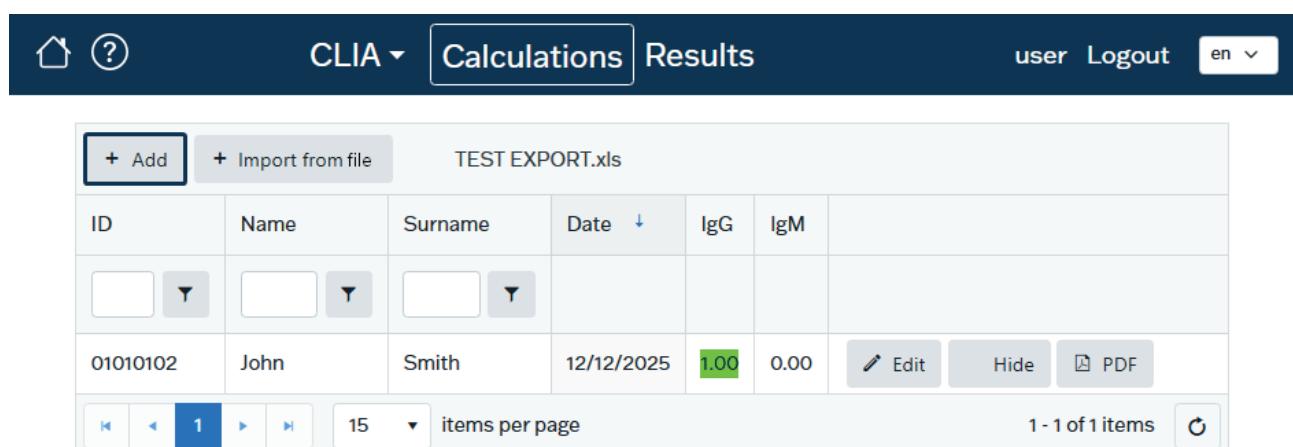
antibodies in CSF and serum, while taking into account the state of the blood-brain barrier and the concentration of total immunoglobulins. Its value therefore enables an objective assessment of whether local (intrathecal) production of specific antibodies has occurred.

The determination of the AI is in accordance with the international guidelines of the EFNS (European Federation of Neurological Societies) and the GDN (German Society of Neurology).

Application of the Antibody Index Software

The software (SW) serves as an aid in diagnosing the condition of the nervous system by calculating the antibody index, which reflects the degree of intrathecal synthesis of specific antibodies. It uses defined mathematical models and concentration

values of antibodies and other proteins measured in human serum and cerebrospinal fluid in the general population. The software enables qualitative and semi-quantitative automatic evaluation and is intended for professional laboratory use.



The screenshot shows a software interface for managing laboratory data. At the top, there is a navigation bar with icons for home, help, user login, and language selection (en). The main area features a table with columns for ID, Name, Surname, Date, IgG, and IgM. A row in the table shows data for a patient named John Smith. Below the table, there are buttons for 'Edit' and 'PDF'. At the bottom, there are navigation buttons for page numbers (1, 15, etc.) and a 'items per page' dropdown, along with a message indicating 1-1 of 1 items.

ID	Name	Surname	Date	IgG	IgM
01010102	John	Smith	12/12/2025	1.00	0.00

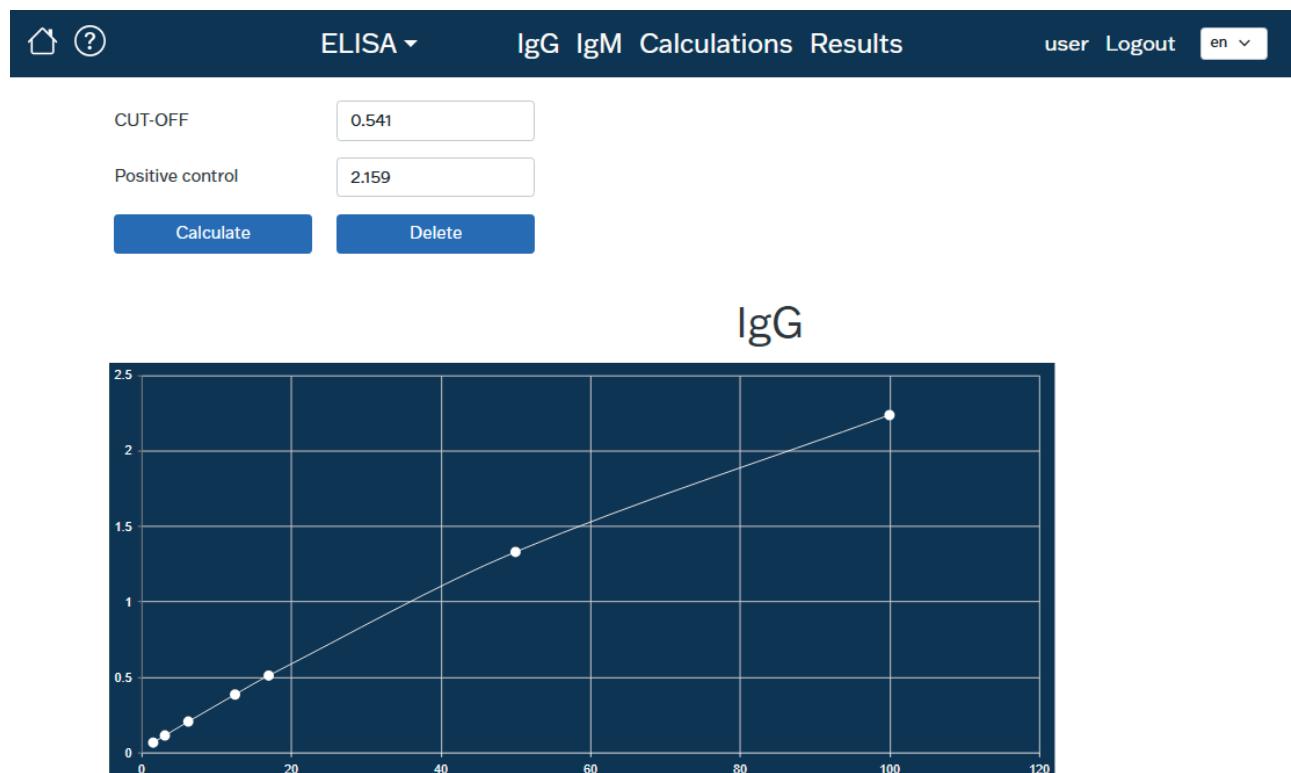
Items per page: 15

1 - 1 of 1 items

Antibody Index Software and compatible assays

The Antibody Index Software is compatible with the EIA/SmartEIA Borrelia recombinant and CLIA Borrelia CSF kits (more information can be found in the Ordering Information section).

	Antibody index CLIA	Antibody index ELISA
Required materials	<ul style="list-style-type: none">- Paired collection of CSF and serum at the same time- Concentration values of albumin and immunoglobulins IgG and IgM in both CSF and serum	
Further sample dilution (in case of highly positive serum or CSF)	Automated on the KleeYa® analyzer	The AI software will issue an instruction to dilute the sample, indicating the appropriate dilution factor
Sample consumption	35-92 µl of CSF, 13-32 µl of serum	110 µl of CSF, 10 µl of serum
Calibration curve	Part of the software – generated automatically from the calibrators provided in the CLIA Borrelia CSF IgG and IgM kits	Part of the software – generated from the Positive Control and CUT-OFF values provided by the EIA Borrelia recombinant IgG and IgM kits during routine testing



Visualization of the calibration curve within the Antibody Index Software interface

Advantages of the Antibody Index Software

1

User comfort

- Clear and intuitive interface
- Easy-to-navigate step-by-step workflow
- Access from multiple PCs simultaneously

2

Safety and compliance

- Server-based application with access management
- Operation in accordance with internal regulations
- Highly controlled product with IVDR certification

3

Workflow efficiency

- Possibility to determine AI as part of the routine test
- Low sample consumption
- Easy and rapid evaluation
- Saving and printing results in PDF format
- Archiving of all results in the software database

4

Clinical validation

- Verified using samples and data from real clinical settings

Technical requirements

For the server

(PC with AI Software installation)

- PC with Windows 10 or higher, or a Windows Server with IIS (Internet Information Services) support



For the user's PC

(for user access to the AI Software)

- PC with Windows 10 or higher
- Installed Google Chrome web browser (current stable version recommended)

External quality assessment results

INSTAND – 06.2025

The accuracy of the AI calculation was confirmed by a quality assessment test performed in June 2025 by an external scientific organization (Instand e.V.) for the detection of intrathecal antibody production according to Reiber.

Category	Sample specification	TestLine result	Meets criteria
IgG	negative	negative	+



Trusted by customers



"This season, our laboratory began using new kits on the KleeYa® analyzer for detecting Borrelia antibodies of the IgG and IgM classes in cerebrospinal fluid. The CLIA Borrelia CSF kits allow us to test paired serum and CSF samples for calculating the AI according to Reiber and for determining intrathecal synthesis of anti-Borrelia antibodies.

We appreciate not only the speed of testing (with results available in just 30 minutes), but also the compatibility of the CLIA Borrelia CSF kits with the Antibody Index evaluation software supplied by TestLine.

The design of the kits and the method settings in the analyzer ensure fully automated dilution of strongly positive samples, achieving optimal antibody concentrations for the software calculation. This diagnostic package is a significant advantage for our routine diagnostics of neuroborreliosis.

Working with the Antibody Index Software is very pleasant and intuitive for the user, and the results correspond well with the clinical picture. In suspected cases, they help us confirm or rule out the diagnosis of neuroborreliosis."

**Central Laboratory – Microbiology,
Třebíč Hospital**

Ordering information

Catalogue number	Name	Quantity
SwAI01	Antibody Index Software	1 pc

Related products

Catalogue number	Name	Quantity
BCSFG50	CLIA Borrelia CSF IgG	50 tests
BCSFM50	CLIA Borrelia CSF IgM	50 tests
BrG192	EIA Borrelia recombinant IgG (192)	192 tests
BrM192	EIA Borrelia recombinant IgM (192)	192 tests
SK-BrG96	SmartEIA Borrelia recombinant IgG	96 tests
SK-BrM96	SmartEIA Borrelia recombinant IgM	96 tests
CL-DIC2	CLIA Dilution Cartridge 2	1 pc
CL-DIC3	CLIA Dilution Cartridge 3	1 pc

Contact us



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