



LYME DISEASE

ELISA FOR THE DETERMINATION OF IgG AND IgM ANTIBODIES

- Lyme disease diagnostics
- Intrathecal synthesis determination in neuroborreliosis



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LYME DISEASE ELISA SCREENING

Differential diagnosis of

- Neuroinfections
- Carditis
- Skin diseases
- Arthritis and arthropathy

Stage of Lyme disease	Clinical manifestations	Laboratory evidence	
		Essential - serology	Supporting
I. Early localized infection	Erythema migrans	IgM positive (3-6 weeks post-infection) Often seronegative	Skin biopsy
II. Early disseminated infection	Borrelial lymphocytoma Myocarditis Opthalmoborreliosis Neuroborreliosis	IgM positive, IgG positive or IgM negative, IgG positive	Histological evidence of B-cell pseudolymphocytoma
III. Late disseminated infection	Arthritis Acrodermatitis chronica atrophicans Chronical neuroborreliosis	IgM negative, IgG positive (high titers of IgG antibodies)	

Testing

- Samples: serum, plasma, cerebrospinal fluid, synovial fluid
- Quantification using 5 standards
- Semiquantitative data evaluation using a Calibrator
- Incubation times 30'/30'/15'
- Incubation at 37 °C
- CE IVD Certified





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Intrathecal synthesis

For the diagnosis of neuroborreliosis it is necessary to determine the intrathecal synthesis of specific IgG or IgM antibodies. A prerequisite for its determination is parallel determination of antibodies in serum and cerebrospinal fluid. Intrathecal synthesis is expressed by so called Antibody index, which is calculated using the equation according to Reiber.

For its calculation following must be measured:

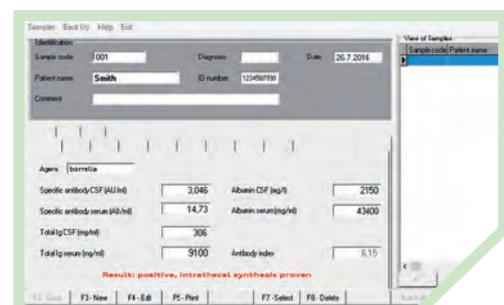
- Concentration of specific antibodies in serum and cerebrospinal fluid
- Total antibody concentrations in serum and cerebrospinal fluid
- Albumin concentration in serum and cerebrospinal fluid

Evaluation of intrathecal synthesis (IS)

Antibodies in serum	Antibodies in cerebrospinal fluid	Antibody index	Evaluation of IS
negative	negative	cannot be assessed	not proven
	equivocal	cannot be assessed	equivocal or nonspecific reaction
	positive	cannot be assessed	positive or nonspecific reaction
equivocal	negative	cannot be assessed	not proven
	equivocal or positive	< 0,5	cannot be assessed
		0,5 - 1,3	not proven
		1,3 - 1,5	equivocal
> 1,5		positive	
positive	negative	cannot be assessed	not proven
	equivocal or positive	< 0,5	cannot be assessed
		0,5 - 1,3	not proven
		1,3 - 1,5	equivocal
		> 1,5	positive

VIDITAB software

- Software for automated calculation of intrathecal synthesis
- Very easy and user friendly
- One software for all relevant pathogens
- Patients database





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Advantages

- Recombinant antigens from the strains of the Czech Republic
- Quantitative determination of IgG and IgM - monitoring of antibody levels
- High sensitivity and specificity
- Determination of intrathecal synthesis using VIDITAB software



Ordering information

Catalog Number	Product	Wells	Sensitivity/Specificity
ODZ-398	ELISA-VIDITEST anti-Borrelia recomb. IgG+ VlsE	96	95% / 99%
ODZ-399	ELISA-VIDITEST anti-Borrelia recomb. IgM	96	99% / 97%
ODZ-398/5ST	ELISA-VIDITEST anti-Borrelia recomb. IgG + VlsE (CSF)	96	95% / 99%
ODZ-399/5ST	ELISA-VIDITEST anti-Borrelia recomb. IgM (CSF)	96	99% / 97%

