

PRODUCT PERFORMANCE:

- ▶ Versatility
- ▶ Validation
- ▶ Conjugation
- ▶ Reproducibility
- ▶ Broad spectrum
- ▶ Specificity and sensitivity
- ▶ Technical support
- ▶ Costs reduction and fast delivery

Rekom High-Quality Raw Material for LYME disease IVD

REKOM RAW MATERIAL FOR LYME DISEASE IVD

NAME	REFERENCE	SOURCE	APPLICATION	DESCRIPTION
ospC	RAG0042 (<i>Ba</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Outer membrane antigen for <i>B. afzelii</i>
	RAG0043 (<i>Bb</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Outer membrane antigen for <i>B. burgdorferi</i>
	RAG0034 (<i>Bg</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Outer membrane antigen for <i>B. garinii</i>
flagellin B	RAG0054 (<i>Ba</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Internal central portion of <i>B. afzelii</i> 41 kDa flagelline B protein
	RAG0055 (<i>Bb</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Internal central portion of <i>B. burgdorferi</i> 41 kDa flagelline B protein
	RAG0072 (<i>Bg</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Internal central portion of <i>B. garinii</i> 41 kDa flagelline B protein
VlsE	RAG0054 (<i>Ba</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Major variable surface antigen for <i>B. garinii</i>
	RAG0022 (<i>Bg</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Major variable surface antigen for <i>B. afzelii</i>
ChimLyme	RAG0102 (<i>Ba</i>)	<i>E. coli</i>	WB, DB, IE, DE, CLIA, LF	Recombinant chimeric antigen for <i>B. burgdorferi</i>

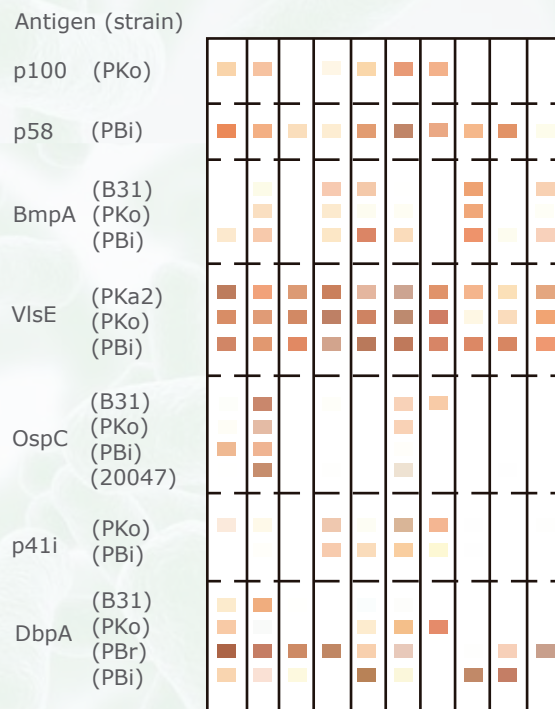
WB: Western Blot
DB: Dot Blot
IE: Indirect ELISA
DE: positive control in direct ELISA
CLIA: Chemiluminescent Immunoassay
LF: Lateral Flow



Pack size: 0.1 mg; 1 mg; bulk
Format: liquid; lyophilised

Lyme borreliosis is the most prevalent tick-borne disease in Europe, the United States and parts of Asia. It is a multisystem disease involving many organs, such as the skin, nervous system, joints and heart. This condition is the most frequent tick-borne disease in the northern hemisphere. As a result of the diversity of clinical symptoms, Lyme borreliosis is often considered as a differential diagnosis. Lyme disease is caused by a group of genetically diverse spirochetes collectively termed *Borrelia burgdorferi sensu lato*. This complex includes several genospecies, of which 3 are known to be pathogenic to humans. The North American pathogenic strains that have been identified are *B. burgdorferi sensu stricto*, in contrast, in Europe and China, all 3 genospecies are found, with *B. garinii* and *B. afzelii* being the most prevalent isolates. Examinations for antibodies against *Borrelia burgdorferi sensu lato* are thus in high demand, and are among the most frequently requested serological tests in microbiological laboratories. Microbiological diagnosis in European patients must consider the heterogeneity of the agents of Lyme borreliosis in Europe.

The diagnosis of Lyme borreliosis usually requires confirmation by means of a microbiological diagnostic assay. Antibody detection methods are mainly used for this purpose, whereas detection of the causative agent by culture isolation and nucleic acid techniques is confined to special situations, such as to clarify clinically and serologically ambiguous findings. It is generally accepted that serological examination should follow the principles of a two-step approach (CDC): (1) a serological screening assay; and (2) in the event of a positive or equivocal result, a confirmatory assay. A sensitive enzyme-linked immunosorbent assay (ELISA) is recommended, which, when it is reactive, should be confirmed by immunoblot.



Representative IgG line immunoblots of patients with neuroborreliosis. Strains belong to the following species: B31 and PKa2 to *Borrelia burgdorferi sensu stricto*; PKo to *B. afzelii*; PBr to *B. garinii* OspA type 3; PBi to *B. garinii* OspA type 4; 20047 to *B. garinii* unknown OspA type. Graphic from Microbiological and serological diagnosis of Lyme borreliosis. Wilske, B., Fingerle, V and Schulte-Spechtel, U. 2007. FEMS