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Monoclonal antibody against basic membrane protein A (BmpA)/P39 *Borrelia burgdorferi* [LA-111.1]

Product No. ADG0107L

Description

Lyme disease is the most common vector-borne disease in North America and Europe. The causative agent *Borrelia burgdorferi* is a bacterium that is maintained in an enzoonotic cycle between *Ixodes* ticks and a large range of mammals. The 39-kDa lipoprotein of *Borrelia burgdorferi*, BmpA, is highly immunogenic in humans and animals and is one of the antigens used in serodiagnostic tests for Lyme disease. BmpA is involved in borrelial pathogenicity, and participates in development of borrelial arthritis. *B. burgdorferi* BmpA is a laminin-binding protein.

Properties

The monoclonal antibody ADG0107L (**clone LA-111.1**) is a murine monoclonal antibody subclass IgG_1 recognizing BmpA (P39). Mice were immunized with cell lysates of *Borrelia burgdorferi*. The antibody has been purified from cell culture supernatant using Protein G affinity chromatography.

Presentation

Screw capped vial containing 1 mg of purified antibody in PBS pH 7.4 + 0.01% ProClin300. The IgG concentration is given on the vial label. Spin the vial briefly before opening.

Storage and Stability

Store the antibody at 2°-8°C. For long-term storage the antibody should be aliquoted and stored at –20°C or colder. It is recommended to avoid freeze-thaw cycles.

Applications

A. ELISA

The antibody can be used as capture antibody in ELISAs. An antibody concentration of 1-10 µg/ml is recommended.

B. Westernblot

The antibody is suitable for Western blot analysis, detecting native and recombinant BmpA (P39) following SDS-PAGE under reducing conditions. A primary antibody concentration of 1-10 µg/mL is recommended.

C. Immunocytochemistry

The antibody can be used for immunocytochemistry on paraformaldehyde fixed spirochetes.

References

1. Nucleotide sequence and analysis of the gene in *Borrelia burgdorferi* encoding the immunogenic P39 antigen. Simpson et al. *FEMS Microbiol Lett.* 1994; 119(3):381-387
2. Heterogeneity of BmpA (P39) among European isolates of *Borrelia burgdorferi* sensu lato and influence of interspecies variability on serodiagnosis. Roessler et al. *J. Clin. Microbiol.* 1997; 35(11):2752-2758
3. An improved recombinant IgG immunoblot for serodiagnosis of Lyme borreliosis. Wilske et al. *Med. Microbiol. Immunol.* 1999; 188(3):139-144
4. *Borrelia burgdorferi* BmpA, BmpB, and BmpD proteins are expressed in human infection and contribute to P39 immunoblot reactivity in patients with Lyme disease. Bryksin et al. *Clin. Diagn. Lab. Immunol.* 2005; 12(8):935-940
5. *Borrelia burgdorferi* BmpA is a laminin-binding protein. Verma et al. *Infect. Immun.* 2009; 77(11):4940-4946
6. *Borrelia burgdorferi* basic membrane protein A initiates proinflammatory chemokine storm in THP 1-derived macrophages via the receptors TLR1 and TLR2. Zhao et al. *Biomed. Pharmacother.* 2019;115:108874

Hinweis/Note:

Der Packungsbeileger dient nur als erste Information. Der relevante Packungsbeileger liegt der Ware bei.

The datasheet is for information purposes only. The current datasheet will be enclosed with product shipment.

For research use only!