

Monoclonal antibody against basic membrane protein A (BmpA)/P39 *Borrelia burgdorferi* [LA-107.2] Product No. ADG0103L

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 enzootic 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 ADG0103L (clone **LA-108.2**) is a murine monoclonal antibody 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

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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

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