

Monoclonal antibody against complement regulator-acquiring protein 1 (BaCRASP-1/cspA) *Borrelia afzelii* Product No. ADG0170L

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. Adaptation to the diverse environmental conditions, including sophisticated means of evading the vertebrate hosts' immune system, in particular complement occurs at the first line of defense following infection. *Borrelia burgdorferi* sensu lato spirochetes express up to five complement regulator-acquiring surface proteins (CRASPs) binding human complement regulators.

Properties

The monoclonal antibody ADG0170L (clone **BaC3/1.12**) is a murine monoclonal antibody, subclass IgG_{2b} recognizing BaCRASP-1. Mice were immunized with cell lysates of *Borrelia afzelii*. The antibody has been purified from cell culture supernatant using Protein G affinity chromatography.

Presentation

Vial containing 1 mg purified antibody in PBS pH 7.4. The 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 BaCRASP-1 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. Immune evasion of *Borrelia burgdorferi* by acquisition of human complement regulators FHL-1/reconectin and Factor H. Kraiczy et al. *Eur. J. Immunol.* 2001; 31(6):1674-1684
2. Complement resistance of *Borrelia burgdorferi* correlates with the expression of BbCRASP-1, a novel linear plasmid-encoded surface protein that interacts with human factor H and FHL-1 and is unrelated to Erp proteins. Kraiczy et al. *J. Biol. Chem.* 2004; 279(4):2421-2429
3. Identification and functional characterization of complement regulator-acquiring surface protein 1 of the Lyme disease spirochetes *Borrelia afzelii* and *Borrelia garinii*. Wallich et al. *Infect. Immun.* 2005; 73(4):2351-2359
4. *Borrelia burgdorferi* regulates expression of complement regulator-acquiring surface protein 1 during mammal-tick infection cycle. Von Lackum et al. *Infect. Immun.* 2005; 73(11):7398-7405
5. *Borrelia burgdorferi* complement regulator-acquiring surface protein 1 of the Lyme disease spirochetes is expressed in humans and induces antibody responses restricted to nondenatured structural determinants. Rossmann et al. *Infect. Immun.* 2006; 74(12):7024-7028
6. Identification and characterization of the factor H and FHL-1 binding complement regulator-acquiring surface protein 1 of the Lyme disease spirochete *Borrelia spielmanii*. Herzberger et al. *Int. J. Med. Microbiol.* 2009; 299(2):141-154

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.

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