

Monoclonal antibody against complement regulator-acquiring protein 1 (CRASP-1) BGA66 *Borrelia garinii* [66-1/2.13] Product No. ADG0152L

Description

Lyme disease is the most common vector-borne disease in North America and Europe. The causative agents of the *Borrelia burgdorferi* sensu lato complex are maintained in an enzootic cycle between *Ixodes* ticks and a large range of mammals. Several *Borrelia* outer surface proteins are upregulated by temperature- and/or mammalian host-specific signals as the spirochete is transmitted from ticks to mammals. BGA66 outer surface lipoprotein (CRASP) was found to be able to bind complement regulators and is immunogenic in mammals.

Properties

The monoclonal antibody ADG0152L (clone 66-1/2.13) is a murine monoclonal antibody, subclass IgG₁ recognizing BGA66. Mice were immunized with rec. BGA66 of *Borrelia garinii*. 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

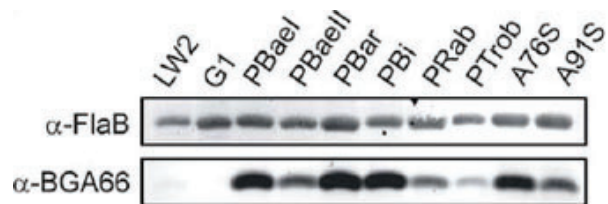
The antibody can be used as capture antibody in ELISAs. An antibody concentration of 1-10 µg/ml is recommended.

B. Immunocytochemistry

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

C. Westernblot

The antibody is suitable for Western blot analysis, detecting native and recombinant BGA66 following SDS-PAGE under reducing conditions. A primary antibody concentration of 1-10 µg/mL is recommended.



Whole spirochetal cell lysates were separated by SDS-PAGE and transferred to NC. Membrans were probed with mAb 66-1/2.13 to identify BGA66

References

1. 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
2. Identification and functional characterization of complement regulator-acquiring surface protein-1 of serum resistant *Borrelia garinii* OspA serotype 4. Van Burgel et al. *BMC Microbiol.* 2010; 10:43
3. BGA66 and BGA71 facilitate complement resistance of *Borrelia bavariensis* by inhibiting assembly of the outer membrane attack complex. Hammerschmidt et al. *Mol. Microbiol.* 2016; 99(2): 407-424
4. Hide and seek: How Lyme disease spirochetes overcome complement attack. Kraiczy. *Front. Immunol.* 2016; 7:385
5. Host immune evasion by Lyme and relapsing fever *Borreliae*: Findings to lead future studies for *Borrelia miyamotoi*. Stone and Brissette. *Front. Immunol.* 2017; 8:12
6. Crystal structure of the membrane attack complex assembly inhibitor BGA71 from the Lyme disease agent *Borrelia bavariensis*. Brangulis et al. *Sci. Rep.* 2018; 8(1):11286

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