

# Monoclonal antibody against outer surface lipoprotein BBA03 Borrelia burgdorferi [A03-1.1]

Product No. ADG0116L

## 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. Linear plasmid lp54 is one of the most highly conserved and differentially expressed elements of the segmented genome of *Borrelia burgdorferi*. Several outer surface proteins encoded on the lp54 plasmid have been shown to be critical at specific times during the infectious cycle. Among these are the OspA/B, DbpA/B, BBA03, BBA52, and BBA64.

# **Properties**

The monoclonal antibody ADG0116L (**clone A03-1.1**) is a murine monoclonal antibody, subclass IgG<sub>1</sub> recognizing an outer surface 20 kDa lipoprotein (BBA03). 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. The IgG concentration is given on the vial label. Spin the vial briefly before opening.

#### Storage and Stability

Store the antibody at  $2^{\circ}-8^{\circ}$ C. For long-term storage the antibody should be aliquoted and stored at  $-20^{\circ}$ 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  $\mu$ g/ml is recommended.

### **B. Westernblot**

The antibody is suitable for Western blot analysis, detecting native and recombinant lpLA7 following SDS-PAGE under reducing conditions. A primary antibody concentration of 1-10  $\mu$ g/mL is recommended.

#### C. Immunocytochemistry

The antibody can be used for immunecytochemistry on paraformaldehyde fixed.

#### References

- 1. Competitive advantage of *Borrelia burgdorferi* with outer surface protein BBA03 during tickmediated infection of the mammalian host. Bestor et al. *Infect. Immun.* 2012; 80(10):3501-3511
- Genomic sequence of a Lyme disease spirochaete, *Borrelia burgdorferi*. Fraser et al. *Nature* 1997; 390:580-586
- Comprehensive spatial analysis of the *Borrelia* burgdorferi lipoproteome reveals a compartmentalization bias toward bacterial surface. Dowdell et al. *J. Bacteriol.* 2017; 199(6):e00658-16
- 4. Identification of 11 pH-regulated genes in *Borrelia burgdorferi* localizing to linear plasmids. Carroll et al. Infect. Immun. 2000; 68(12):6677-6684

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#### Hinweis/Note:

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