

Monoclonal antibody against heat shock protein HSP70 *Borrelia burgdorferi* [LA-3] Product No. ADG0109L

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 66- to 73-kDa proteins of *Borrelia burgdorferi* are dominant immunogens and expressed in all strains of *B. burgdorferi*. The amino terminal sequence of the 70-kDa HSP70 proteins of *B. burgdorferi* are almost identical and exhibit remarkable sequence similarity to the DnaK heat-shock protein of *E. coli*.

Properties

The monoclonal antibody ADG0109L (clone LA-3) is a murine monoclonal antibody, subclass IgG_{2a} recognizing HSP70. 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°-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 HSP70 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 and for cryo-electron tomography.

References

1. Characterization of *Borrelia burgdorferi* associated antigens by monoclonal antibodies. Kramer et al. *Immunobiol.* 1990; 181:357-366
2. Evaluation of genetic divergence among *Borrelia burgdorferi* isolates by use of OspA, fla, HSP60, and HSP70 gene probes. Wallich et al. *Infect. Immun.* 1992; 60(11):4856-4866
3. Novel *Borrelia burgdorferi* isolates from *Ixodes scapularis* and *Ixodes dentatus* ticks feeding on humans. Anderson et al. *J. Clin. Microbiol.* 1996; 34(3):524-529
4. *Borrelia burgdorferi* HSP70 homolog: characterization of an immunoreactive stress protein. Anzola et al. *Infect. Immun.* 1992; 60(9):3704-3713
5. Immunological and structural characterization of the dominant 66- to 73-kDa antigens of *Borrelia burgdorferi*. Luft et al. *J. Immunol.* 1991; 146:2776-2782
6. Characterization of the heat shock response and identification of heat shock protein antigens of *Borrelia burgdorferi*. Carreiro et al. *Infect. Immun.* 1990; 58:2186-2191
7. Coordinate synthesis and turnover of heat shock proteins in *Borrelia burgdorferi*: degradation of DnaK during recovery from heat shock. Cluss et al. *Infect. Immun.* 1996; 64(5):1736-1743

Distributed by:

LOXO GMBHIMMUNOLOGIE • MOLEKULARBIOLOGIE
BIOCHEMIE • PRODUKTE UND SYSTEMEGerhart-Hauptmann-Str. 48
69221 Dossenheim

Tel +49 6221 868023

Fax +49 6221 8680255

www.loxo.de - info@loxo.de

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.