IMMBIOMED

ImmBioMed GmbH & Co. KG
Bergstrasse 85, DE-64319 Pfungstadt
Phone: +49 6157 9799 685, Fax: +49 6157 86443

Monoclonal antibody against complement regulator-acquiring protein (CihC) *Borrelia recurrentis* [Brk2-47.1/BR2]

Product No. ADG0160L

Description

Borrelia recurrentis, the causal agent of louse-borne relapsing fever is transmitted to humans via infected body lice. Infection with *B. recurrentis* has been achieved only in humans and is accompanied by a systemic inflammatory disease, multiple relapses of fever and massive spirochetemia. A key virulence factor of *B. recurrentis* is their potential to undergo antigenic variation. In addition, *B. recurrentis* express a surface lipoprotein, termed CihC, and acquire C4b-binding protein (C4bp) and human C1 esterase inhibitor (C1-Inh), the major inhibitors of the classical and lectin pathway of complement activation to effectively evade innate and adaptive immunity.

Properties

The monoclonal antibody ADG0160L (**Brk2-47.1/BR2**) is a murine monoclonal antibody, subclass IgG_1 recognizing CihC of *Borrelia recurrentis* strain A1. Mice were immunized with rec. CihC. 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

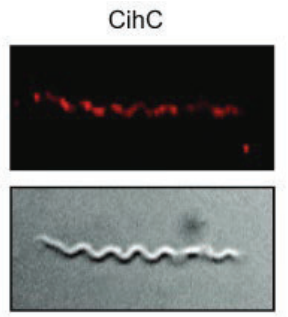
The antibody can be used as capture antibody in ELISAs. An antibody concentration of 1-10 µg/ml is recommended.

B. Westernblot

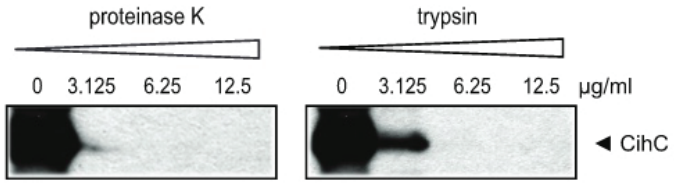
The antibody is suitable for Western blot analysis, detecting native and recombinant CihC following SDS-PAGE under reducing conditions. A primary antibody concentration of 1-10 µg/mL is recommended.

C. Immunocytochemistry

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



Surface localization of CihC. Immunofluorescence analysis of *B. recurrentis* A1 after incubation mAb Brk2-47.1/BR2 followed by rabbit anti-mouse Cy3-conjugated IgG. Corresponding differential interference contrast image is shown in the lower panel



Proteinase K and trypsin treatment affects surface expression of native CihC. *B. recurrentis* cells were incubated with the indicated concentrations of proteinase K and trypsin, lysed, immunoblotted, and probed with anti-CihC mAb Brk2-47.1/BR2.

References

1. *Borrelia recurrentis* employs a novel multifunctional surface protein with anti-complement, anti-opsonic and invasive potential to escape innate immunity. Grosskinsky et al. *PloS One*. 2009; 4(3):e4858

2. Human complement regulators C4b-binding protein and C1 esterase inhibitor interact with a novel outer surface protein of *Borrelia recurrentis*. Grosskinsky et al. *PLoS Negl. Trop. Dis*. 2011; 4(6):e698

3. Immune evasion strategies of relapsing fever spirochetes. Rötterding and Kraiczy. *Front. Immunol.* 2020; 11:1560

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.

For research use only!