

## Monoclonal antibody against complement regulator-acquiring protein (BpcA) *Borrelia parkeri* [Bp-3/32.2] Product No. ADG0173L

### Description

Tick-borne relapsing fever (TBRF) in North America is caused by the spirochete species *Borrelia hermsii*, *Borrelia parkeri* and *Borrelia turicatae*, which are transmitted to humans through the bite of the respective infected *Ornithodoros* tick vector. The pathogen employs multiple strategies, including the acquisition of complement regulators and antigenic variation, to escape innate and adaptive immune responses and to persist in the blood. The outer surface lipoprotein BpcA binds the complement regulators factor H and FH-related protein 1 and, simultaneously, the host plasminogen/plasmin and may aid in the spirochete's dissemination and invasion.

### Properties

The monoclonal antibody ADG0173L (**Bp-3/32-2**) is a murine monoclonal antibody recognizing BpcA of *Borrelia parkeri* strain RML. Mice were immunized with rec. BpcA. 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.

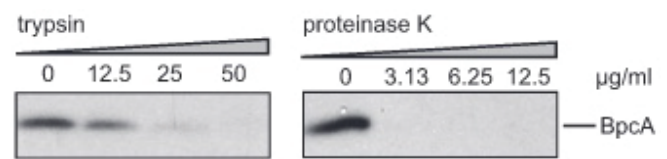
#### Hinweis/Note:

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.

### C. Westernblot

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



Surface exposition of BpcA. Proteinase K and trypsin treatment affects surface expression of native BpcA. *B. parkeri* cells were incubated with the indicated concentrations of proteinase K and trypsin, lysed, immunoblotted, and probed with anti-BpcA mAb Bp-3/32.2.

### References

1. Binding of human urokinase type plasminogen activator and plasminogen to *Borrelia* species. Klempner et al. *J. Infect. Dis.* 1996; 174(1):97-104
2. Molecular characterization of the interaction of *Borrelia parkeri* and *Borrelia turicatae* with human complement regulators. Schott et al. *Infect. Immun.* 2010; 78(5):2199-2208
3. Immune evasion strategies of relapsing fever spirochetes. Rötterding and Kraiczy. *Front. Immunol.* 2020; 11:1560

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Gerhart-Hauptmann-Str. 48  
 69221 Dossenheim

Tel +49 6221 868023  
 Fax +49 6221 8680255

www.loxo.de - info@loxode