

Borrelia burgdorferi Osp A (0551): sc-58093

BACKGROUND

Lyme disease is a vector-borne, multisystem inflammatory disease caused by the spirochete *Borrelia burgdorferi*, which is transmitted to humans by the bite of ticks of the *Ixodes ricinus* complex. *B. burgdorferi* is divided into at least 11 species including *Borrelia garinii*. *B. garinii* is one of the two major strains found in Europe and is Gram-negative and helical in shape. The neurological symptoms of Lyme disease such as back and leg pains and partial facial paralysis are caused by *B. garinii*, which usually resides in the cerebrospinal fluid of infected mammals. Outer surface protein A and B as well as the cell bound proteoglycans are involved in the attachment of *B. garinii* to neuronal cells. Patients infected with *B. garinii* tend to be older, with skin lesions often located on the trunk. *B. garinii* has a shorter incubation time compared with other *Borrelia* strains, and it is more often associated with certain local systemic symptoms and abnormal liver function.

REFERENCES

1. Carlsson, S.A., et al. 2003. Characteristics of erythema migrans in *Borrelia afzelii* and *Borrelia garinii* infections. Scand. J. Infect. Dis. 35: 31-33.
2. Hanincova, K., et al. 2003. Association of *Borrelia garinii* and *B. valaisiana* with songbirds in Slovakia. Appl. Environ. Microbiol. 69: 2825-2830.
3. Sun, Y. and Xu, R. 2003. Ability of *Ixodes persulcatus*, *Haemaphysalis concinna* and *Dermacentor silvarum* ticks to acquire and transstadially transmit *Borrelia garinii*. Exp. Appl. Acarol. 31: 151-160.
4. Rudolf, I. and Hubalek, Z. 2003. Effect of the salivary gland and midgut extracts from *Ixodes ricinus* and *Dermacentor reticulatus* (Acari: Ixodidae) on the growth of *Borrelia garinii* in vitro. Folia Parasitol. 50: 159-160.
5. Sicklinger, M., et al. 2003. In vitro susceptibility testing of four antibiotics against *Borrelia burgdorferi*: a comparison of results for the three genospecies *Borrelia afzelii*, *Borrelia garinii* and *Borrelia burgdorferi sensu stricto*. J. Clin. Microbiol. 41: 1791-1793.
6. Glockner, G., et al. 2004. Comparative analysis of the *Borrelia garinii* genome. Nucleic Acids Res. 32: 6038-6046.
7. Ruzic-Sabljic, E. and Strle, F. 2004. Comparison of growth of *Borrelia afzelii*, *B. garinii* and *B. burgdorferi sensu stricto* in MKP and BSK-II medium. Int. J. Med. Microbiol. 294: 407-412.
8. De Martino, S.J., et al. 2006. Enhanced culture of *Borrelia garinii* and *Borrelia afzelii* strains on a solid BSK-based medium in anaerobic conditions. Res. Microbiol. 157: 726-729.
9. Rupprecht, T.A., et al. 2006. Adhesion of *Borrelia garinii* to neuronal cells is mediated by the interaction of OspA with proteoglycans. J. Neuroimmunol. 175: 5-11.

SOURCE

Borrelia burgdorferi Osp A (0551) is a mouse monoclonal antibody raised against *Borrelia burgdorferi*.

PRODUCT

Each vial contains 100 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Borrelia burgdorferi Osp A (0551) is recommended for detection of 28 kDa protein of *Borrelia burgdorferi* origin by immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

SELECT PRODUCT CITATIONS

1. Wu, S.M., et al. 2015. Negative modulation of the epigenetic regulator, UHRF1, by thyroid hormone receptors suppresses liver cancer cell growth. Int. J. Cancer 137: 37-49.
2. Magni, R., et al. 2015. Application of Nanotrap technology for high sensitivity measurement of urinary outer surface protein A carboxyl-terminus domain in early stage Lyme borreliosis. J. Transl. Med. 13: 346.
3. Sanderson, V.P., et al. 2020. The platelet fraction is a novel reservoir to detect Lyme *Borrelia* in blood. Biology 9: 366.
4. Karvonen, K., et al. 2022. *Borrelia burgdorferi* outer membrane vesicles contain antigenic proteins, but do not induce cell death in human cells. Microorganisms 10: 212.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.