



# Borrelia burgdorferi garinii (Bg14): sc-51785

## 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 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

- Carlsson, S.A., Granlund, H., Jansson, C., Nyman, D. and Wahlberg, P. 2003. Characteristics of erythema migrans in *Borrelia afzelii* and *Borrelia garinii* infections. Scand. J. Infect. Dis. 35: 31-33.
- Hanincova, K., Taragelova, V., Koci, J., Schafer, S.M., Hails, R., Ullmann, A.J., Piesman, J., Labuda and M., Kurtenbach, K. 2003. Association of *Borrelia garinii* and *B. valaisiana* with songbirds in Slovakia. Appl. Environ. Microbiol. 69: 2825-2830.
- 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.
- 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.
- Sicklinger, M., Wienecke, R. and Neubert, U. 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.
- Glockner, G., Lehmann, R., Romualdi, A., Pradella, S., Schulte-Spechtel, U., Schilhabel, M., Wilske, B., Suhnel, J. and Platzer, M. 2004. Comparative analysis of the *Borrelia garinii* genome. Nucleic Acids Res. 32: 6038-6046.
- Ruzic-Sabljić 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.
- De Martino, S.J., Sordet, C., Piemont, Y., Ruzic-Sabljić, E., Monteil, H., Thaddee Vetter, M., Sibilia, J. and Jaulhac, B. 2006. Enhanced culture of *Borrelia garinii* and *Borrelia afzelii* strains on a solid BSK-based medium in anaerobic conditions. Res. Microbiol. 157: 726-729.
- Rupprecht, T.A., Koedel, U., Heimerl, C., Fingerle, V., Paul, R., Wilske, B. and Pfister, H.W. 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 garinii* (Bg14) is a mouse monoclonal antibody raised against bacterial lysates of *Borrelia burgdorferi garinii* origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>1</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

*Borrelia burgdorferi garinii* (Bg14) is recommended for detection of *Borrelia burgdorferi garinii* by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

## SELECT PRODUCT CITATIONS

- Atanasoff-Kardjaleff, A.K., Lünne, F., Kalinina, S., Strauss, J., Humpf, H.U. and Studt, L. 2021. Biosynthesis of fusapyrone depends on the H3K9 methyltransferase, FmKmt1, in *Fusarium mangiferae*. Front. Fungal Biol. 2: 671796.

## 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](http://www.scbt.com) for detailed protocols and support products.