Borrelia spp Immuno-fluorescence kit

art. #: ID12303
size: kit for 100/200/400 assays

General information *Borrelia spp*
Lyme disease is an emerging infectious disease caused by at least three species of Gram negative bacteria belonging to the genus *Borrelia*. *Borrelia burgdorferi* is the main cause of Lyme disease in the United States, whereas *Borrelia afzelii* and *Borrelia garinii* are the main causes of Lyme disease in Europe. Lyme disease is the most common tick-borne disease in the Northern Hemisphere. *Borrelia* is transmitted to humans by the bite of infected ticks belonging to a few species of the genus Ixodes. Early symptoms may include fever, headache, fatigue, depression, and a characteristic circular skin rash. Left untreated, more advanced symptoms may involve the joints, heart, and central nervous system. In most cases, the infection can be treated by antibiotics, especially if the illness is treated early. Delayed or inadequate treatment can lead to the more serious symptoms, which can be disabling and difficult to treat.

Applications
Excellent suitable for immunofluorescence staining procedures on glass, other applications or platforms are not tested but should not be excluded.

Contents

Content	Format	Use	Store at
Wash Buffer 1	Liquid	Ready to use	Room temperature
Blocking Buffer	Liquid	Ready to use	4°C, before use warm up to room temperature
Wash Buffer 2	Liquid	Ready to use	Room temperature

Borrelia spp antibody

Clonality: : polyclonal
Immunogen : whole cells of *Borrelia burgdorferi*
Host animal : goat
Conjugation : Fluorescein
Purification : affinity purified
Format : lyophilized

Stabilizer and preservative
Goat serum and bovine serum albumin (BSA) are added as a protein stabilizers. No preservatives added. Additional biological protection may be provided with 0,1% sodium azide. Non-sterile.

Antibody concentration
This product contains 0,5 mg of affinity purified antibody.

Rehydration
Rehydrate with 1 ml reagent quality water, rotate the vial until the lyophilized pellet is totally dissolved.

Use

Dilute to the desired concentration with blocking buffer immediately before use, mix thoroughly. This working solution is not recommended for long term storage.

Storage

Store at 2-8°C until rehydration, rehydrated antibody may be stored for up to one week at 2-8°C, thereafter it should be stored at -20°C. Avoid multiple freeze thaw steps. When aliquoting, store product in volumes greater than 50µl. Variations in temperature due to freeze cycles may cause loss of activity when rehydrated product is stored frozen in aliquots less than 50µl.

Specificity

This antibody is highly specific for *Borreliaburgdorferi, Borrelia hermsii, Borrelia anserina* and *Borrelia coriaceae*. Other *Borrelia* species have not been tested to date. Antibody has not been tested for cross-reactivity to treponemes.

Excitation/emission values

Fluorescein is excited at 494 nm (in PBS) and emits at 521 nm (in PBS).

Contact information

If you have any questions about this product, please contact us at Sales@innosieve.com or call us at (+31)-646717500.

Protocol in eppendorf tube:

Notes before starting:

- All centrifugation steps are performed for 2 minutes at 14.000 RCF (relative centrifugal force)
- Not all the supernatant is removed to prevent loss of the pellet

Method:

1. Pipette 500µl sample in an eppendorf tube
   Remark: if the amount of sample is less, add Wash Buffer 1 to a final volume of 500µl
2. Vortex the sample and centrifuge
3. Remove 450µl of the supernatant without disturbing the pellet
4. Resuspend the pellet in the remaining supernatant
5. Add 500µl Blocking Buffer, vortex and centrifuge, remove 500µl of the supernatant
6. Resuspend the pellet in the remaining supernatant
7. Add 500µl Wash Buffer 1, vortex and centrifuge, remove 500µl of the supernatant
8. Resuspend the pellet in the remaining supernatant
9. Prepare the antibody solution, dilute for one sample 10µl antibody stock in 90µl Blocking Buffer, mix by pipetting up and down
10. Add 100µl prepared antibody working solution, vortex and incubate at room temperature for 10 minutes
11. Add 400µl Wash Buffer 1, vortex and centrifuge, remove 500µl of the supernatant
12. Resuspend the pellet in the remaining supernatant
13. Add 500µl Wash Buffer 1, vortex and centrifuge, remove 500µl of the supernatant
14. Resuspend the pellet in the remaining supernatant
    Optional: in case higher stringently is required add 500µl Wash Buffer 2, vortex and centrifuge. Discard the supernatant and resuspend the pellet in the remaining supernatant. This step can be repeated. When applying this stringency step, finish by applying Wash Buffer 1 to resuspend the cells.
15. Add 5µl of the bacterial suspension onto a glass slide and allow to air dry in the dark
16. Heat fix the sample by passing the glass slide the flame for 3 or 4 times
17. Add Mounting Medium and cover glass
18. Analyze the sample

Protocol on glass slide

Notes before starting:

- Any type of sample can be used, preferably suspended cells in buffer

Method 1:

1. Add the sample onto a glass slide and allow to air dry in the dark
   Note: in most cases a sample volume of 5 - 50 µl is recommended

2. Heat fix the sample by passing the glass slide the flame for 3 or 4 times

3. Add 50µl blocking buffer, allow to stand 1 minute, rinse gently with 500µl wash buffer 1

4. Prepare the antibody solution, dilute for one sample 5µl antibody stock in 45µl blocking buffer, mix by pipetting up and down

5. Add 50µl diluted antibody, pipette gently up and down 8 times and incubate at RT for 10 minutes
   Note: depending on the sample the incubation time can be elongated to improve the signal

6. Rinse twice gently with 500µl wash buffer 1
   Optional: in case higher stringently is required rinse gently with 500µl Wash Buffer 2. This step can be repeated. When applying this stringency step, finish with one wash step using Wash Buffer 1

7. Allow to air dry the sample in the dark

8. Add Mounting Medium and cover glass

9. Analyze the sample

Protocol on glass slide

Notes before starting:

- Any type of sample can be used, preferably suspended cells in buffer

Method 2:

1. Add the sample onto a glass slide and allow to air dry in the dark
   Note: in most cases a sample volume of 5 - 50 µl is recommended
2. Heat fix the sample by passing the glass slide the flame for 3 or 4 times
3. Rinse twice gently with 500µl MilliQ
4. Add 50µl Wash Buffer 3, allow to stand 2 minutes, rinse gently with 500µl Wash Buffer 3
5. Rinse gently with 500µl blocking buffer
6. Prepare the antibody solution, dilute for one sample 5µl antibody stock in 45µl Blocking Buffer, mix by pipetting up and down
7. Add 50µl diluted antibody, pipette gently up and down 8 times and incubate at RT for 10 minutes
8. *Note: depending on the sample the incubation time can be elongated to improve the signal*
9. Rinse thrice gently with 500µl Wash Buffer 1
   Optional: in case higher stringently is required rinse gently with 500µl Wash Buffer 2. This step can be repeated. When applying this stringency step, finish with one wash step using Wash Buffer 1
10. Allow to air dry the sample in the dark
11. Add Mounting Medium and cover glass
12. Analyze the sample