

Anti-Flagellin (RABBIT) Antibody
Flagellin Antibody
Catalog # ASR4449

Specification

Anti-Flagellin (RABBIT) Antibody - Product Information

Host	Rabbit
Conjugate	Unconjugated
Target Species	<i>Borrelia burgdorferi</i>
Clonality	Polyclonal
Application	WB, E, I, LCI
Application Note	This protein-A purified antibody has been tested for use in ELISA and Western blotting. Specific conditions for reactivity should be optimized by the user. Expect a band approximately 33.9 kDa in size corresponding to <i>Borrelia burgdorferi</i> Flagellin protein by Western blotting in the appropriate cell lysate or extract.
Physical State	Lyophilized
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Immunogen	MBP-fusion protein corresponding to <i>Borrelia burgdorferi</i> Flagellin protein.
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Preservative	0.01% (w/v) Sodium Azide

Anti-Flagellin (RABBIT) Antibody - Additional Information

Gene ID 56568071

Other Names
7106737

Purity

This product was Protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. This antibody is specific for Lyme *Borrelia* spp. Flagellin protein. A BLAST analysis was used to suggest cross-reactivity with Flagellin from *B. burgdorferi*, *garii*, and *valaisiana* sources based on 100% homology with the immunizing sequence. Cross-reactivity with Flagellin from other sources has not been determined.

Storage Condition

Store vial at 4° C prior to restoration. For extended storage aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.

Precautions Note

This product is for research use only and is not intended for therapeutic or diagnostic applications.

Anti-Flagellin (RABBIT) Antibody - Protein Information

Name fla

Function

Component of the core of the flagella.

Cellular Location

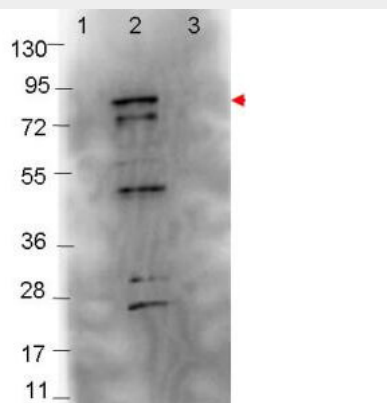
Periplasmic flagellum. Periplasm.

Anti-Flagellin (RABBIT) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Flagellin (RABBIT) Antibody - Images



Western blot showing detection of 0.1 μ g of recombinant Flagellin protein. Lane 1: Molecular weight markers. Lane 2: MBP-Flagellin fusion protein (arrowhead at expected MW: 76.3 kDa). Lane 3: MBP alone. Protein was run on a 4-20% gel, then transferred to 0.45 μ m nitrocellulose. After blocking with 1% BSA-TTBS (p/n MB-013, diluted to 1X) overnight at 4°C, primary antibody was used at 1:1000 at room temperature for 30 min. HRP-conjugated Goat-Anti-Rabbit (p/n 611-103-122) secondary antibody was used at 1:40,000 in MB-070 blocking buffer and imaged on the VersaDoc™ MP 4000 imaging system (Bio-Rad).

Anti-Flagellin (RABBIT) Antibody - Background

Flagellin is a protein found in the hollow cylinder forming the filament in bacterial flagellum. Its structure is helical, which is important for its function. Studies comparing aflagellate *Borrelia* to

flagellated indicate that the flagella have a role in the invasion of human tissue. The N- and C-termini of flagellin form the inner core of the flagellar filament, and the central portion of the protein makes up the outer surface. While the terminus of the protein is quite similar between all bacterial flagellins, the central portion is variable. The flagellin genes are highly conserved among the different *Borrelia* species. Mammals often have acquired immune responses (T-cell and antibody responses) to flagellated bacterium. Some bacteria are able to switch between multiple flagellin genes in order to evade this response. *Borrelia burgdorferi*, the spirochete that is associated with Lyme Disease, may use this tactic when challenging mammals with infection. *Borrelia* have double-stranded linear plasmids in addition to supercoiled circular plasmids, in low copy number. This suggests that initiation of DNA replication and partitioning are carefully controlled during the cell division cycle. It is believed that expression of the various proteins associated with the spirochete may be regulated by the changes in tick life cycle, changes in conditions during tick feeding (such as temperature, pH, and nutrients) and/or in coordination with the course of infection of the mammal host, i.e., changes in environment as the spirochete migrates from the tick's midgut to its salivary glands to the mammal host. *B. burgdorferi* can attach to (and also differentially express antigens in) diverse tissues within the vertebrate host and the tick vector, suggesting that physiological factors other than pH and temperature may play roles in modulating *B. burgdorferi* gene expression.