Datasheet for ABIN964648

anti-Flagellin antibody

1 Image

Go to Product page

Overview

Quantity:	100 µg
Target:	Flagellin (FliC)
Reactivity:	Borrelia burgdorferi
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB), Lateral Flow (LF)

Product Details

Immunogen:	MBP-fusion protein corresponding to Borrelia burgdorferi Flagellin protein. Immunogen Type: RecombinantProtein
Isotype:	IgG
Specificity:	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, garinii, and valaisiana sources based on 100% homology with the immunizing sequence.. Cross-reactivity with Flagellin from other sources has not been determined.
Characteristics:	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

Product Details

	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.
Purification:	purified
Sterility:	Sterile filtered

Target Details

Target:	Flagellin (FliC)
Alternative Name:	Flagellin (FliC Products)
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,

Target Details

	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. Synonyms: 41 kDa antigen, Borrelia burgdorferi p41, fla, Flagellar filament 41 kDa core protein, Bacterial flagellin.
Gene ID:	7106737
NCBI Accession:	ZP_03087263
UniProt:	P11089
Pathways:	Inflammasome

Application Details

Application Notes:	This protein-A purified antibody has been tested for use in Western blotting. Specific conditions for reactivity should be optimized by the user. Expect a band approximately 33.9 kDa in size corresponding to Borrelia burgdorferi Flagellin protein by Western blotting in the appropriate cell lysate or extract.
Comment:	Gene Name: BBU94A_0149, fla
Restrictions:	For Research Use only

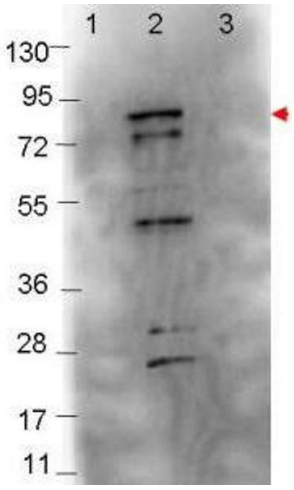
Handling

Format:	Lyophilized
Reconstitution:	Reconstitution Buffer: Restore with deionized water (or equivalent), Reconstitution Volume: 100 µL
Concentration:	1.0 mg/mL
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	Sodium azide
Precaution of Use:	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C/-20 °C

Handling

Storage Comment:	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. Expiration date is one (1) year from date of opening.
Expiry Date:	12 months

Images



Western Blotting

Image 1. Western blot showing detection of 0.1 µg 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 µm nitrocellulose. After blocking with 1% BSA-TTBS , 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 secondary antibody was used at 1:40,000 in ABIN925618 blocking buffer and imaged on the MP 4000 imaging system (Bio-Rad).