

Product datasheet for **TA396880**

fla Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	WB: 1:1,000 ELISA: 1:6,000
Reactivity:	Borrelia burgdorferi B31
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	MBP-fusion protein corresponding to Borrelia burgdorferi Flagellin protein.
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.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Reconstitution Method:	Restore with deionized water (or equivalent) - Reconstitution Volume: 100 µL
Concentration:	1.2 mg/ml - lot specific
Conjugation:	Unconjugated
Storage:	Store vial at -20° C or below prior to opening. This vial contains a relatively low volume of reagent (25 µL). To minimize loss of volume dilute 1:10 by adding 225 µL of the buffer stated above directly to the vial. Recap, mix thoroughly and briefly centrifuge to collect the volume at the bottom of the vial. Use this intermediate dilution when calculating final dilutions as recommended below. Store the vial at -20°C or below after dilution. Avoid cycles of freezing and thawing.
Stability:	Expiration date is three (3) months from date of receipt.
Database Link:	<u>P11089</u>

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Background:

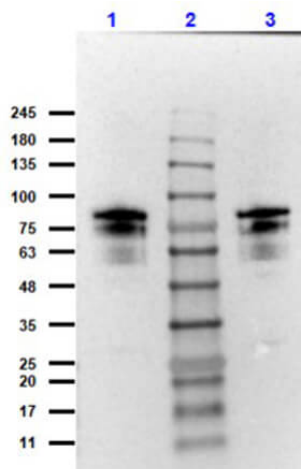
Flagellin is a protein found in the hollow cylinder forming the filament in bacterial flagellum. Its structure is helical, which is important for its function. Studies comparing aflagellate *Borrelia* to flagellated indicate that the flagella have a role in the invasion of human tissue. The N- and C-termini 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.

Synonyms:

rabbit anti-Flagellin Antibody, 41 kDa antigen, *Borrelia burgdorferi* p41, fla, Flagellar filament 41 kDa core protein, Bacterial flagellin

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 *Borrelia burgdorferi* Flagellin protein by Western blotting in the appropriate cell lysate or extract.

Product images:


Western Blot of Anti-Flagellin Antibody. Lane 1: Flagellin Control Protein (p/n 000-001-C14) Reduced [0.1µg]. Lane 2: Opal Prestained Molecular Weight Markers (p/n MB-210-0500). Lane 3: Flagellin Control Protein Non-Reduced [0.1µg]. Primary Antibody: Anti-Flagellin at 1.0µg/mL overnight at 4°C. Secondary Antibody: Goat anti-Rabbit IgG peroxidase (p/n 611-103-122) at 1:70,000 for 30 mins at RT. Block: BLockOut (p/n MB-073) for 1hrs at RT. Predicted MW: ~76.3kDa. Exposure: 2sec.