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Product datasheet for TA396883S

bmpA, BB_0383 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	**WB**: 1:1,000
Reactivity:	Borrelia afzelii, Borrelia burgdorferi
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	MBP-fusion protein corresponding to Borrelia burgdorferi p39 protein.
Specificity:	This product was Protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. This antibody is specific for Borrelia burgdorferi p39 protein. A BLAST analysis was used to suggest cross-reactivity with p39 from B. burgdorferi and B. afzelii sources based on 100% homology with the immunizing sequence. Partial reactivity is expected against B. garinii sources based on 88-95% homology and to B.spielmanii A14S based on 86-96% homology. Cross-reactivity with p39 from other sources has not been determined.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.7 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:	Q45010

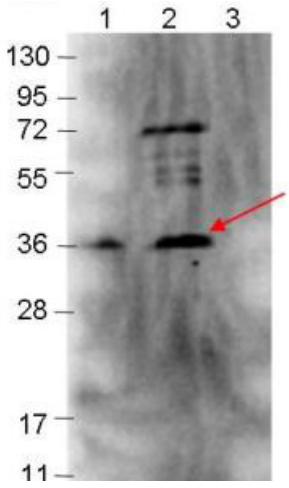
View online »

Background: The p39 protein, or Basic membrane protein A, is one of the immunogenic cell membrane components of Borrelia burgdorferi, the spirochete carried by Ixodes ticks. The spirochete migrates from the tick midgut during feeding to its salivary glands and are thus transmitted to the mammal host. This transition may be facilitated by changes in expression of some B. burgdorferi genes. 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. BmpA is expressed during the invasion of the spirochete and in the evolution of the arthritis of Lyme disease in mammals. It belongs to the BMP lipoprotein family. The major products of the B. burgdorferi basic membrane protein (bmp) A/B operon that are induced in murine and human joints possess inflammatory properties. Non-lipidated and lipidated versions of BmpA have been shown to induce the pro-inflammatory cytokine TNF-α and IL-1β in human synovial cells. The induction of cytokine responses in synovial cells via activation of the NF-kappaB and p38 MAP kinase pathways could potentially contribute to the genesis of Lyme arthritis. The BmpA outer-surface protein is an important antigen for serodiagnosis of human infection. B. burgdorferi adheres to host extracellular matrix components, including laminin, but may not bind mammalian type I or type IV collagens or fibronectin.

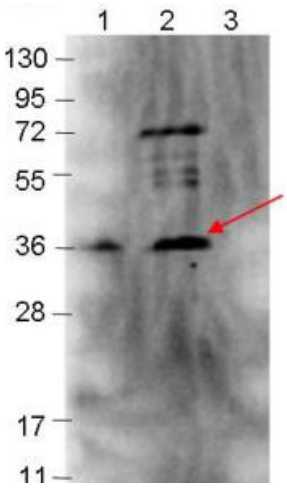
Synonyms: rabbit anti-p39 Antibody, Basic membrane protein A, Borrelia burgdorferi bmpA, immunodominant antigen P39, membrane lipoprotein BmpA

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 35.4 kDa in size corresponding to Borrelia burgdorferi p39 protein by Western blotting in the appropriate cell lysate or extract.

Product images:



Western blot showing detection of 0.1 µg of recombinant p39 protein. Lane 1: Molecular weight markers. Lane 2: MBP-p39 fusion protein (expected MW: 77.8 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 (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).



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