10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-p39 (RABBIT) Antibody

p39 Antibody

Catalog # ASR4455

Specification

Anti-p39 (RABBIT) Antibody - Product Information

Host	**Rabbit**
Conjugate	**Unconjugated**
Target Species	**Borrelia burgdorferi**
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 35.4 kDa in size corresponding to Borrelia burgdorferi p39 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 Borrelia burgdorferi p39 protein.**
Reconstitution Volume	**100 µL**
Reconstitution Buffer	**Restore with deionized water (or equivalent)**
Preservative	**0.01% (w/v) Sodium Azide**

Anti-p39 (RABBIT) Antibody - Additional Information

Other Names

1195220

Purity

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.

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.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-p39 (RABBIT) Antibody - Protein Information

Name bmpA

Function
Not known; immunogenic protein.

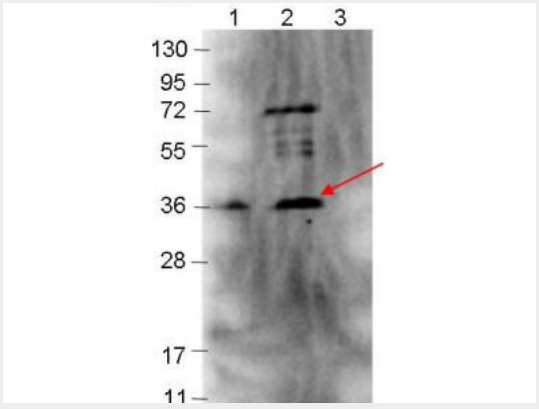
Cellular Location
Cell membrane; Lipid-anchor

Anti-p39 (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 Cytomety
- Cell Culture

Anti-p39 (RABBIT) Antibody - 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).

Anti-p39 (RABBIT) Antibody - 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-1ß 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.