

Product datasheet for **TA396879S**

ospA Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, WB
Recommended Dilution:	WB: 1:1,000 ELISA: >1:5,000
Reactivity:	Borrelia burgdorferi
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	MBP-fusion protein corresponding to Borrelia burgdorferi OspA 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 OspA protein. A BLAST analysis was used to suggest cross-reactivity with OspA from B. burgdorferi and sources based on 100% homology with the immunizing sequence. Cross-reactivity with OspA or Osp from other sources has not been determined.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	1.0 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:	P0CL66



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Background:

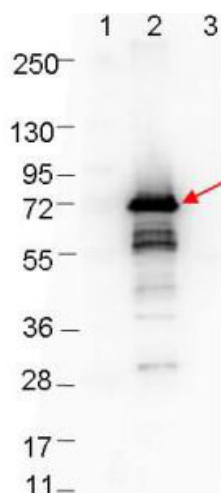
Outer-Surface Protein A (OspA), a lipoprotein from *Borrelia burgdorferi* encoded on its Plasmid lp54, is a major component of the spirochete's extracellular matrix. OspA probably serves as a lipid-anchor. The spirochetes migrate from the tick midgut during feeding to its salivary glands and are thus transmitted to the mammal host. This transition may be facilitated by changes in expression of some *B. burgdorferi* genes. Upon transmission of the spirochete from the Ixodes tick to mammalian host, the transcript level of OspA can change. 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. *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:

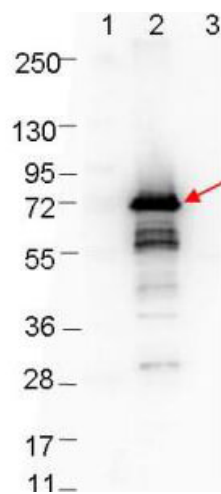
rabbit anti-OspA Antibody, Outer surface protein A, *Borrelia burgdorferi* OspA, ospA, BB_A15, Plasmid lp54

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 28.1 kDa in size corresponding to *Borrelia burgdorferi* OspA protein by Western blotting in the appropriate cell lysate or extract.

Product images:

Western blot showing detection of 0.1 μ g of recombinant OspA protein. Lane 1: Molecular weight markers. Lane 2: MBP-OspA fusion protein (arrow; expected MW: 70.5 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).



Western blot showing detection of 0.1 µg of recombinant OspA protein. Lane 1: Molecular weight markers. Lane 2: MBP-OspA fusion protein (arrow; expected MW: 70.5 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).