

**Anti-OspB (RABBIT) Antibody**  
**OspB Antibody**  
**Catalog # ASR4451****Specification**

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**Anti-OspB (RABBIT) Antibody - Product Information**

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

**Anti-OspB (RABBIT) Antibody - Additional Information****Gene ID** 56568597**Other Names**  
1194340**Purity**

This product was Protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. This antibody is specific for *Borrelia burgdorferi* OspB protein. A BLAST analysis was used to suggest cross-reactivity with OspB from *B. burgdorferi*, *afzelii*, *spielmanii*, and *garii* sources based on 100% homology with the immunizing sequence, and with *B. valaisiana* based on 99% homology. Cross-reactivity with OspB 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.

## Anti-OspB (RABBIT) Antibody - Protein Information

**Name** ospB

### Cellular Location

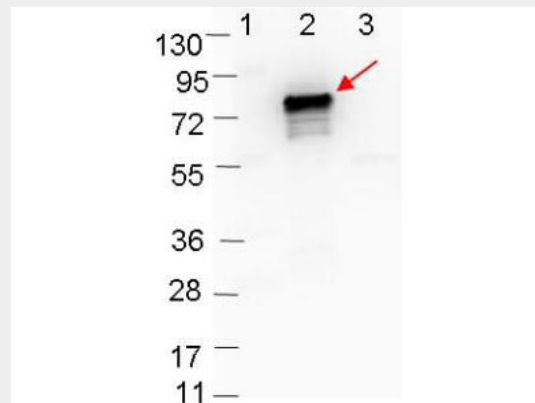
Cell outer membrane; Lipid-anchor.

## Anti-OspB (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 Cytometry](#)
- [Cell Culture](#)

## Anti-OspB (RABBIT) Antibody - Images



Western blot showing detection of 0.1  $\mu$ g of recombinant OspB protein. Lane 1: Molecular weight markers. Lane 2: MBP-OspB fusion protein (arrow; expected MW = 72.7 kDa). Lane 3: MBP alone. Protein was run on a 4-20% gel, then transferred to 0.45  $\mu$ 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).

## Anti-OspB (RABBIT) Antibody - Background

OspB, is one of the major Outer Surface Proteins of the outer membrane of *Borrelia burgdorferi*, which is composed of various unique outer surface proteins (Osp) that have been characterized (OspA through OspF). The Osp proteins are lipoproteins anchored by N-terminally attached fatty acid molecules to the membrane. They are presumed to play a role in virulence, transmission, or survival in the tick. Two of the major surface Ag of *Borrelia burgdorferi*, the 31-kDa OspA and

34-kDa OspB proteins, show a high degree of sequence similarity, are encoded by a 49-kb plasmid and share a common promoter, and are coordinately transcribed. OspA, OspB, and OspD are expressed by *B. burgdorferi* residing in the gut of unfed ticks, suggesting that they promote the persistence of the spirochete in ticks between blood meals. OspB has a contributing role in the adherence of *B. burgdorferi* to the tick gut. The C terminus of OspB is important for eliciting a protective immune response to OspB. *B. burgdorferi* has the ability to vary its surface proteins in response to immune attack.