

**Anti-OspC (RABBIT) Antibody**  
**OspC Antibody**  
**Catalog # ASR4443**

**Specification**

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

Host	Rabbit
Conjugate	Unconjugated
Target Species	<i>Borrelia burgdorferi</i>
Clonality	Polyclonal
Application	WB, I, LCI
Application Note	This protein-A purified antibody has been tested for use in Western blotting and in ELISA. Specific conditions for reactivity should be optimized by the user. Expect a band approximately 20.7 kDa in size corresponding to <i>Borrelia burgdorferi</i> OspC 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> OspC protein.
Reconstitution Volume	100 µL
Reconstitution Buffer	Restore with deionized water (or equivalent)
Preservative	0.01% (w/v) Sodium Azide

**Anti-OspC (RABBIT) Antibody - Additional Information**

**Other Names**  
1194415

**Purity**

This product was Protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. This antibody is specific for *Borrelia burgdorferi* OspC protein. A BLAST analysis was used to suggest cross-reactivity with p39 from *B. burgdorferi*, *afzelii*, and *valaisiana* sources based on 100% homology with the immunizing sequence. Partial reactivity is expected against *B. japonica* and *americana* sources based on 94% homology. Cross-reactivity with OspC 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-OspC (RABBIT) Antibody - Protein Information

**Name** ospC {ECO:0000303|PubMed:8478108}

### Function

A major immunodominant protein in mammalian hosts (PubMed:<a href="http://www.uniprot.org/citations/8098841" target="\_blank">8098841</a>, PubMed:<a href="http://www.uniprot.org/citations/8225587" target="\_blank">8225587</a>, PubMed:<a href="http://www.uniprot.org/citations/8478109" target="\_blank">8478109</a>). Required for the initial stages of mammalian infection (PubMed:<a href="http://www.uniprot.org/citations/14970347" target="\_blank">14970347</a>, PubMed:<a href="http://www.uniprot.org/citations/16714588" target="\_blank">16714588</a>, PubMed:<a href="http://www.uniprot.org/citations/20199597" target="\_blank">20199597</a>, PubMed:<a href="http://www.uniprot.org/citations/28873507" target="\_blank">28873507</a>). Interaction with tick I. ricinus salivary protein Salp15 protects the bacteria from antibody-mediated killing in vitro and in vivo (PubMed:<a href="http://www.uniprot.org/citations/18752445" target="\_blank">18752445</a>). Inhibits macrophage-mediated phagocytosis of the bacteria (PubMed:<a href="http://www.uniprot.org/citations/26438793" target="\_blank">26438793</a>). Binds human plasminogen; this probably confers an extracellular protease activity on the bacteria that allows it to traverse tissue (PubMed:<a href="http://www.uniprot.org/citations/20199597" target="\_blank">20199597</a>, PubMed:<a href="http://www.uniprot.org/citations/22433849" target="\_blank">22433849</a>). Binds human complement C4-B, which may inhibit the complement cascade (Probable) (PubMed:<a href="http://www.uniprot.org/citations/28873507" target="\_blank">28873507</a>). Experiments in mice suggest it may play another role after initial infection (Probable) (PubMed:<a href="http://www.uniprot.org/citations/27611840" target="\_blank">27611840</a>).

### Cellular Location

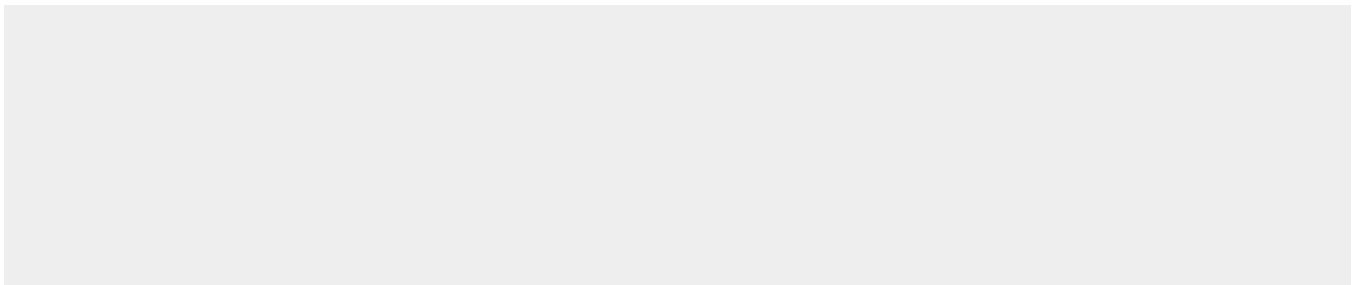
Cell outer membrane; Lipid-anchor. Cell surface Note=Expressed in a punctate fashion on a subset of cells in vitro

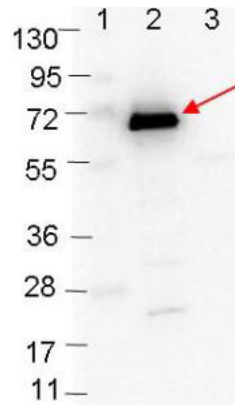
## Anti-OspC (RABBIT) Antibody - Protocols

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-OspC (RABBIT) Antibody - Images





Western blot showing detection of 0.1 µg of recombinant OspC protein. Lane 1: Molecular weight markers. Lane 2: MBP-OspC fusion protein (arrow; expected MW: 63.1 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-OspC (RABBIT) Antibody - Background**

Outer Surface Protein C, or OspC, is a 20.7 kDa immunogenic protein on the outer surface of the spirochete *Borrelia burgdorferi*. Its function is not known, but it is located with lipid-anchoring sites on the outer cell membrane.