Recombinant antigen ospC for *Borrelia burgdorferi*

CATALOG NUMBER: RAG0043 **LOT NUMBER:** #

RECOMBINANT ANTIGEN: the outer surface protein C (ospC) of *Borrelia burgdorferi* (Lagal *et al.*, 2003).

DESCRIPTION: the *Borrelia burgdorferi* antigen ospC has been prepared as a recombinant antigen fused to a his-tag in its N-terminus.

PRESENTATION: liquid protein solution

SOURCE: *Escherichia coli*

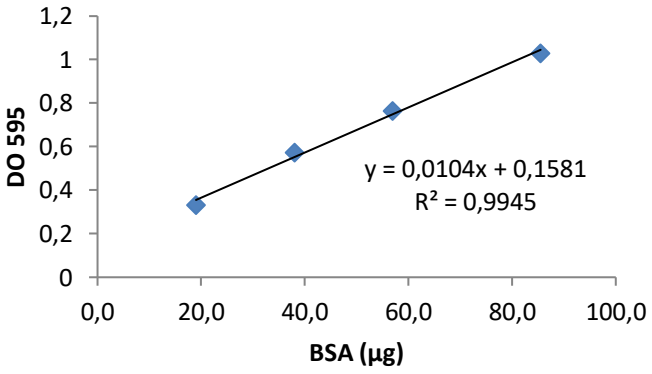
MOLECULAR WEIGHT: determined by SDS-PAGE, the protein band is between molecular markers of 25,000 and 35,000 Da, while relative molecular mass calculated from amino acid sequence is 27,887.3 Da.

BATCH COMPOSITION:

COMPONENTS	COMPOSITION
his-ospC	recombinant antigen with a his-tag in its N-terminus
Storage buffer	20 mM phosphate buffer pH 7 and 0.15 M NaCl

QUALITY CONTROL:

1. PROTEIN CONCENTRATION DETERMINED ESPECTROPHOTOMETRICALLY



This protein does not contain any Trp residues. Experience shows that this could result in more than 10% error in the computed extinction coefficient. Therefore, we have measured the protein concentration by using the colorimetric assay based on the interaction between Coomassie brilliant blue and the arginine and aromatic residues (Bradford Method) and its maximum absorption shifts from 470 nm to 595 nm. The standard curve was performed with the protein BSA. 40 µl of the protein were analysed.

DO_{595} = 0.951
CONCENTRATION: 1.91 mg/ml

2. PURITY CONTROL IN SDS-PAGE: 15%

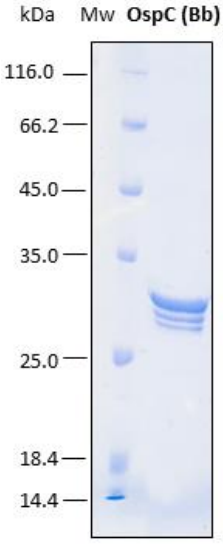


Figure 1. SDS-PAGE analysis (15%) of 2 µl of recombinant ospC. Purity is > 95% as determined by gel electrophoresis. Bands which slightly appear under the main band correspond to this same protein as it is showed in a western blot performed with a his-tag monoclonal antibody.

3. ABSENCE OF PRECIPITATION AFTER A FREEZING AND THAWING CYCLE: ok

LOT SPECIFICATIONS:

1. CONCENTRATION: 1.91 mg/ml

2. TOTAL QUANTITY PER ALIQUOT: 1 mg

3. TOTAL VOLUME PER ALIQUOT: 0.549 ml

4. STORAGE: Protein is shipped with dry ice. Upon arrival, it should be aliquoted to avoid repeated freezing and thawing cycles and stored at -20ºC to -80ºC. In order to defrost the protein, maintain the aliquot at 25ºC without shaking to avoid aggregation.

5. TESTED APPLICATIONS: none.

6. POSIBLE APPLICATIONS: WB, DB, Indirect ELISA, positive control in direct ELISA, CLIA, lateral-flow. Where this product has not been tested for use in a particular technique, this does not necessarily exclude its use in such procedures. Suggested working dilutions are given as a guide only. It is recommended that the user titrates.

7. OBSERVATIONS: Proteins should be maintained frozen at high concentrations. The dilution to be performed for ELISA assays should be made with a small quantity of protein, the same day of the experiment. In order to defrost the protein, maintain the aliquot at 25ºC without shaking to avoid aggregation. Prior making test dilutions and after defrosting the protein, is recommended to remove possible protein aggregates by centrifuging the stock solution, avoiding alterations in the immobilization of the biomolecule to the solid surface.

Rekom Biotech S.L. – BIC-Granada, Avda. Innovación, 1 – 18016, Granada (Spain) Tel: +34 958 63 70 85
E-mail: info@rekombiotech.com – Web: www.rekombiotech.com –An ISO 9001 and 13485 Certified Company

RELATED PRODUCTS:

Flagellin B Ba, Flagellin B Bg, Flagellin B Bb, ospC Ba, ospC Bg, VlsE Bg, VlsE Ba, ChimLyme Bb.

BIBLIOGRAPHY:

Lagal, V., le Postic, D., Ruzic-Sabljic, E., and G. Baranton. Genetic Diversity among Borrelia Strains Determined by Single-Strand Conformation Polymorphism Analysis of the ospC Gene and Its Association with Invasiveness. 2003. Journal of Clinical Microbiology, 41:5059–5065

Bradford, MM. A rapid and sensitive method for the quantitation of microgram quantities of protein utilizing the principle of protein dye binding. Anal Biochem. 1976, 131:499-503.

Important Notes: During shipment, small volumes of product will occasionally become entrapped in the seal of the product vial. For products with volumes of 200 µl or less, we recommend gently tapping the vial on a hard surface or briefly centrifuging the vial in a tabletop centrifuge to dislodge any liquid in the containers cap.

Although recombinant antigens are expressed in non-pathogenic *E. coli* and bacterial integrity is destroyed during purification, the antigen preparation should be handled as potentially infectious.

FOR RESEARCH AND COMMERCIAL USE IN VITRO: not for human in vivo or therapeutic use.

Rekom Biotech S.L. – BIC-Granada, Avda. Innovación, 1 – 18016, Granada (Spain) Tel: +34 958 63 70 85
E-mail: info@rekombiotech.com – Web: www.rekombiotech.com –An ISO 9001 and 13485 Certified Company