

**Erpd/Arp37 Control Protein - 000-001-C09**
**Code:** 000-001-C09

**Size:** 100 µg

**Product Description:** Erpd/Arp37 Control Protein - 000-001-C09

**Concentration:** 1.0mg/mL by modified Lowry assay

**PhysicalState:** Liquid (sterile filtered)

<b>Label</b>	Unconjugated
<b>Gene Name</b>	BB_F01
<b>Buffer</b>	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
<b>Stabilizer</b>	None
<b>Preservative</b>	0.01% (w/v) Sodium Azide
<b>Storage Condition</b>	Store vial at -20 °C prior to opening. Aliquot contents and freeze at -20 °C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. Dilute only prior to immediate use.
<b>Synonyms</b>	Arp37, Borrelia burgdorferi ErpD, control protein
<b>Application Note</b>	ErpD/Arp37 is suitable as a control in immunological assays. Specific conditions for reactivity should be optimized by the end user. Expect bands at 78 kDa for Arp37-MBP, (~35.6 kDa for Arp37 and 42.4 kDa for MBP) in size corresponding to ErpD/Arp37 by Western blotting in the appropriate cell lysate or extract.
<b>Background</b>	ErpD (ospE/F-Related Protein D), also known as Arp37, is from the spirochete <i>Borrelia burgdorferi</i> , which is carried by Ixodes ticks. Erp proteins from <i>Borrelia burgdorferi</i> are postulated to be lipoproteins, based on their predicted amino acid sequences. 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 <i>B. burgdorferi</i> 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. Several studies have demonstrated that infected humans and animals produce antibodies directed against Erp proteins within the first 2-4 weeks of infection, indicative of Erp synthesis during the initial stages of vertebrate infection. It is postulated that surface-exposed Erp proteins could facilitate interactions with host tissues during the establishment of vertebrate infection. Lyme disease proteins are ideal for researchers interested in immunology, neurology, and rheumatology, coinfections, autoimmune, and neurodegenerative diseases.
<b>Purity And Specificity</b>	ErpD/Arp37 is a fusion protein with an MBP tag and was expressed in <i>E. coli</i> . Analysis by SDS-PAGE resulted in a pattern consistent with purified ErpD/Arp37 and was estimated to be greater than 90% pure.
<b>Assay Dilutions</b>	Lateral Flow Assay: User Optimized
<b>ELISA</b>	User Optimized
<b>Western Blot</b>	User Optimized
<b>Other Assays</b>	Lateral Flow Assay: User Optimized
<b>Expiration</b>	Expiration date is six (6) months from date of opening.
<b>General Reference</b>	Fraser C.M., Casjens S., Huang W.M., Sutton G.G., Clayton R.A., Lathigra R., White O., Ketchum K.A., Dodson R.J., Hickey E.K., Gwinn M.L., Dougherty B.A., Tomb J.-F., Fleischmann R.D., Richardson D.L., Peterson J.D., Kerlavage A.R., Quackenbush J., Salzberg S.L., Hanson M., van Vugt R., Palmer N., Adams M.D., Gocayne J.D., Weidman J.F., Utterback T.R., Watthey L., McDonald L.A., Artiach P., Bowman C., Garland S.A., Fujii C., Cotton M.D., Horst K., Roberts K.M., Hatch B., Smith H.O., Venter J.C. (1997) Genomic sequence of a Lyme disease spirochaete, <i>Borrelia burgdorferi</i> . <i>Nature</i> 390:580-586.

**Related Products**

200-401-C09	Anti-ErpD/Arp37 (RABBIT) Antibody - 200-401-C09
B501-0500	BLOTTO Immunoanalytical Grade (Non-Fat Dry Milk) - B501-0500
BSA-50	BOVINE SERUM ALBUMIN - Fraction V (Immunoglobulin and Protease Free) - BSA-50
MB-070	Blocking Buffer for Fluorescent Western Blotting - MB-070

**Related Links**

UniProtKB - O51011

<http://www.uniprot.org/uniprot/O51011>

NCBI - NP\_045437.1

[http://www.ncbi.nlm.nih.gov/protein/11496643?report=genbank&log\\$=proalign&blast\\_rank=1&RID=2W9DXTP001S](http://www.ncbi.nlm.nih.gov/protein/11496643?report=genbank&log$=proalign&blast_rank=1&RID=2W9DXTP001S)

GeneID - 1194073

## Images

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SDS-PAGE of Erpd/Arp37 Control Protein. Lane 1: Molecular Weight Marker. Lane 2: Erpd/Arp37 Control Protein. Load: 10  $\mu$ l at 1:8 dilution. Predicted/Observed size: 78 kDa fusion protein, 35.6 kDa for Arp37, 42.4 kDa for MBP alone.



## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.