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Datasheet for 200-401-C09

Erpd/Arp37 Antibody

Overview

Description:	Anti-ErpD/Arp37 (RABBIT) Antibody - 200-401-C09
Item No.:	200-401-C09
Size:	100 µg
Applications:	ELISA, WB
Reactivity:	Borrelia burgdorferi
Host Species:	Rabbit

Product Details

Background:	This product is antibody made against ErpD (ospE/F-Related Protein D), also known as Arp37, from the spirochete Borrelia burgdorferi, which is carried by Ixodes ticks. Erp proteins from Borrelia burgdorferi 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 B. burgdorferi 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.
Synonyms:	Rabbit anti-ErpD Antibody, rabbit anti-Arp37 Antibody, rabbit anti-Arp37/ErpD Antibody, Arp37, Borrelia burgdorferi ErpD
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	BB_F01

Reactivity:	Borrelia burgdorferi
Immunogen Type:	Recombinant Protein
Immunogen:	MBP-fusion protein corresponding to Borrelia burgdorferi ErpD/Arp37 protein.
Purity/Specificity:	This product was Protein-A purified and cross-adsorbed against MBP from monospecific antiserum by chromatography. It is directed against, and shows specific reactivity for, Borrelia burgdorferi ErpD protein. Reactivity with ErpD/Arp37 protein from other sources has not been determined.
Relevant Links:	• UniProtKB - G5IXI1 • NCBI - WP_010890266.1 • GeneID - 1194073

Application Details

Tested Applications:	ELISA, WB
Application Note:	Anti-ErpD antibody has been tested in ELISA and Western Blot. Specific conditions for reactivity should be optimized by the end user. Expect bands at ~37.5 kDa and ~65 kDa in size corresponding to ErpD/Arp37 by Western blotting in the appropriate cell lysate or extract.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
ELISA:	>1:5,000
WB:	1:1,000

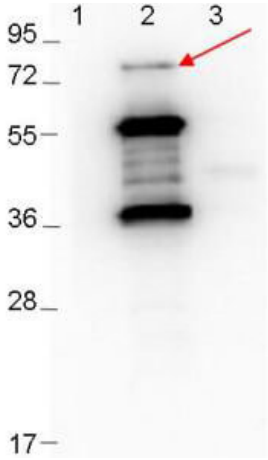
Formulation

Physical State:	Lyophilized
Concentration:	1.0 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.01% (w/v) Sodium Azide
Stabilizer:	None
Reconstitution Volume:	100 µL
Reconstitution Buffer:	Restore with deionized water (or equivalent)

Shipping & Handling

Shipping Condition:	Ambient
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.
Expiration:	Expiration date is one (1) year from date of receipt.

Images



Western Blot
Western Blot showing detection of 0.1 µg recombinant proteins in western blot. Lane 1: Molecular weight markers. Lane 2: MBP-ErpD/Arp37 fusion proteins (arrow: expected MW of major band: 73.3 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).

References

- Lone A et al. The Borrelia burgdorferi VlsE Lipoprotein Prevents Antibody Binding to an Arthritis-Related Surface Antigen. *Cell Rep.* (2020)

Disclaimer

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