Recombinant Borrelia burgdorferi sensu stricto (B31) ErpD/Arp37 Protein, MBP-tagged

Cat. No. BOR-030 **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Borrelia burgdorferi ErpD protein, fused to an MBP-tag and produced in E. coli (>90% purity).
Tag	MBP
Background	ErpD (OspE/F-Related Protein D), also known as Arp37, is encoded by the spirochete B. burgdorferi, which is carried by Ixodes ticks. Strain B31 is the type strain (ATCC 35210) for this organism and was derived by limited dilutional cloning from the original Lyme-disease tick isolate derived by A. Barbour (Johnson, et al., 1984). Several studies have demonstrated that infected humans and animals produce antibodies directed against Erp proteins within the first 2-4 weeks of infection, suggesting Erp synthesis occurs during the initial stages of vertebrate infection. Surface-exposed Erp proteins may then facilitate interactions with host tissues during the establishment of vertebrate infection (Fraser, et al., 1997). Erp proteins from B. burgdorferi are believed 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 (Stevenson, et al., 1996).

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Purity	>90% by SDS-PAGE
Formulation	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 and 0.01% (w/v) Sodium Azide
Stability	At +4 centigrade: Not determined. At -80 centigrade: Not determined.
Freezing	Can be frozen, but avoid multiple freeze/thaw cycles.
Storage	Short Term Storage: +2 centigrade to +8 centigrade Long Term Storage: -80 centigrade
Concentration	1.0 mg/mL by UV absorbance at 280 nm
Notes	This product is intended for research and manufacturing uses only. It is not a diagnostic device. The user assumes all responsibility for care, custody and control of the material, including its disposal, in accordance with all regulations.
Type	Recombinant
ClassID 1	Infectious Disease

GENE INFORMATION

Synonyms	Borrelia burgdorferi sensu stricto (B31) ErpD/Arp37

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