

Figure S1. Multiple amino acid sequence alignment of the BmpA protein of *B. burgdorferi* s.l. deposited in NCBI

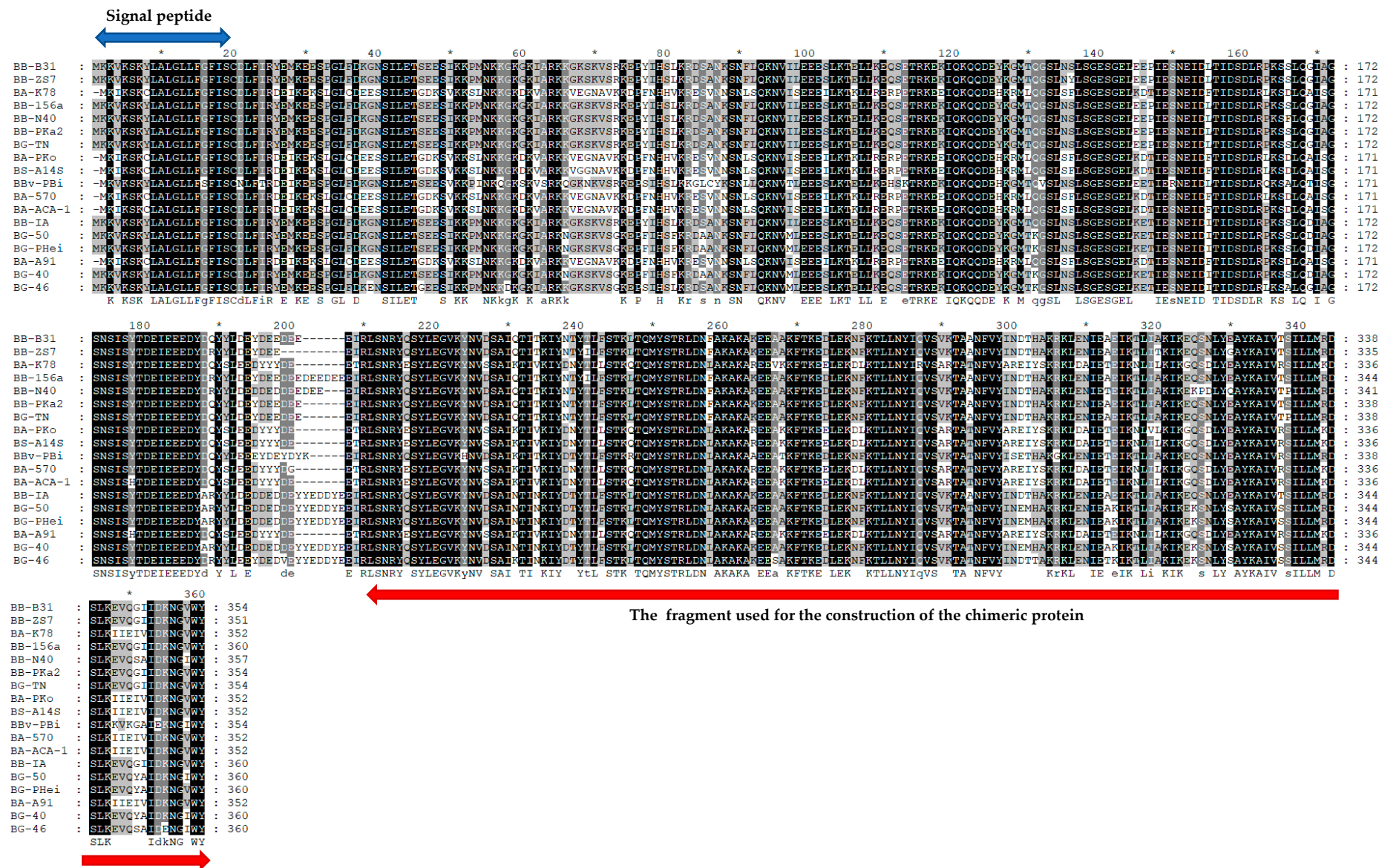


Figure S2. Multiple amino acid sequence alignment of the BBK32 protein of *B. burgdorferi* s.l. deposited in NCBI

Table S1. The level of IgG antibodies and reactivity of chimeric proteins with individual sera (bold sera for which the results are shown in Figure 1.)

BmpA-BBA64					BmpA-BBK32				
Positive sera			Negative sera		Positive sera			Negative sera	
No.	IgG level	Results	No.	Results	No.	IgG level	Results	No.	Results
1	35	Reactive	1	Non reactive	1	35	Reactive	1	Non reactive
2	39	Reactive	2	Non reactive	2	39	Reactive	2	Non reactive
3	42	Reactive	3	No reactive	3	42	Reactive	3	No reactive
4	48	Reactive	4	Non reactive	4	48	Reactive	4	Non reactive
5	51	Reactive	5	Non reactive	5	51	Reactive	5	Non reactive
6	56	Reactive	6	Non reactive	6	56	Reactive	6	Non reactive
7	59	Reactive	7	Non reactive	7	59	Reactive	7	Non reactive
8	65	Reactive	8	Non reactive	8	65	Reactive	8	Non reactive
9	71	Reactive	9	Non reactive	9	71	Reactive	9	Non reactive
10	77	Reactive	10	Non reactive	10	77	Reactive	10	Non reactive
11	80	Reactive	11	Non reactive	11	80	Reactive	11	Non reactive
12	86	Reactive	12	Non reactive	12	86	Reactive	12	Non reactive
13	94	Reactive	13	Non reactive	13	94	Reactive	13	Non reactive
14	98	Reactive	14	Non reactive	14	98	Reactive	14	Non reactive
15	111	Reactive	15	Non reactive	15	111	Reactive	15	Non reactive
16	137	Reactive	16	Non reactive	16	137	Reactive	16	Non reactive
17	149	Reactive	17	Non reactive	17	149	Reactive	17	Non reactive
18	178	Reactive	18	Non reactive	18	178	Reactive	18	Non reactive
19	195	Reactive	19	Non reactive	19	195	Reactive	19	Non reactive
20	203	Reactive	20	Non reactive	20	203	Reactive	20	Non reactive
Summary		20/20	0/20		Summary		20/20	0/20	

Figure S4. pUET1/BmpA-BBA64 map

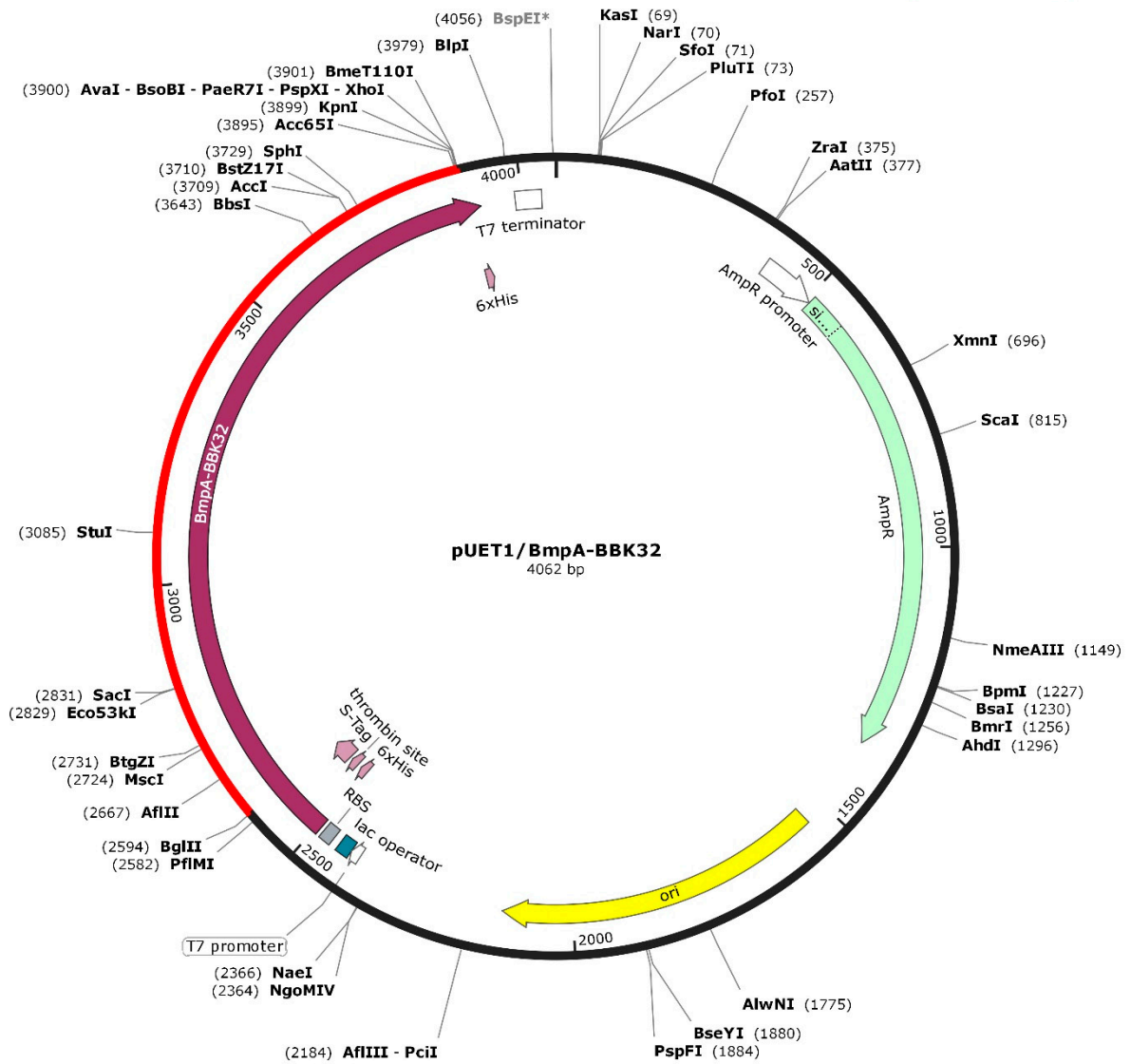


Figure S5. pUET1/BmpA-BBK32 map