

SUPPLEMENTAL FIGURES

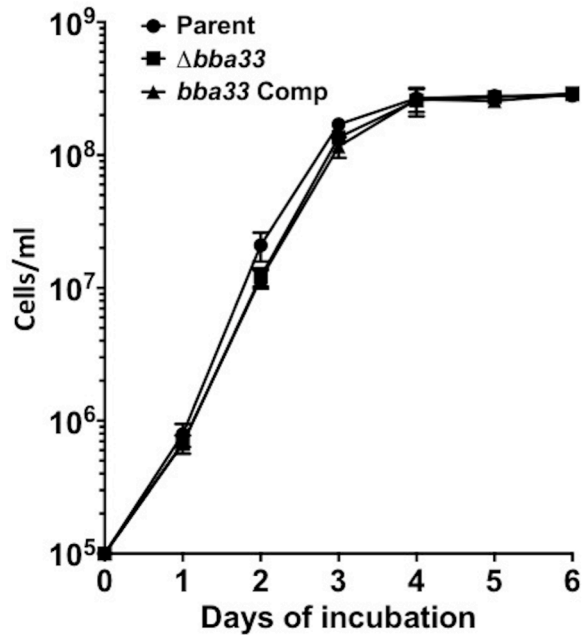


Fig. S1. *In vitro* growth of the *B. burgdorferi* strains used in this study. The *B. burgdorferi* Parent strain (ML23/pBBE22*luc*), the $\Delta bba33$ mutant (HZ001/pBBE22*luc*), and the *bba33* complemented strain (HZ001/pHZ300; *bba33* Com.) were grown in triplicate in BSK-II media at 37°C, 5% CO₂, pH 6.8 and enumerated by dark field microscopy daily out to day 6. Similar growth kinetics between these 3 strains were observed when the cells were grown at 32°C, 1% CO₂, pH 6.8, as well as other growth conditions (not shown). Data points shown reflect average value with standard error. No significant differences in growth were observed.

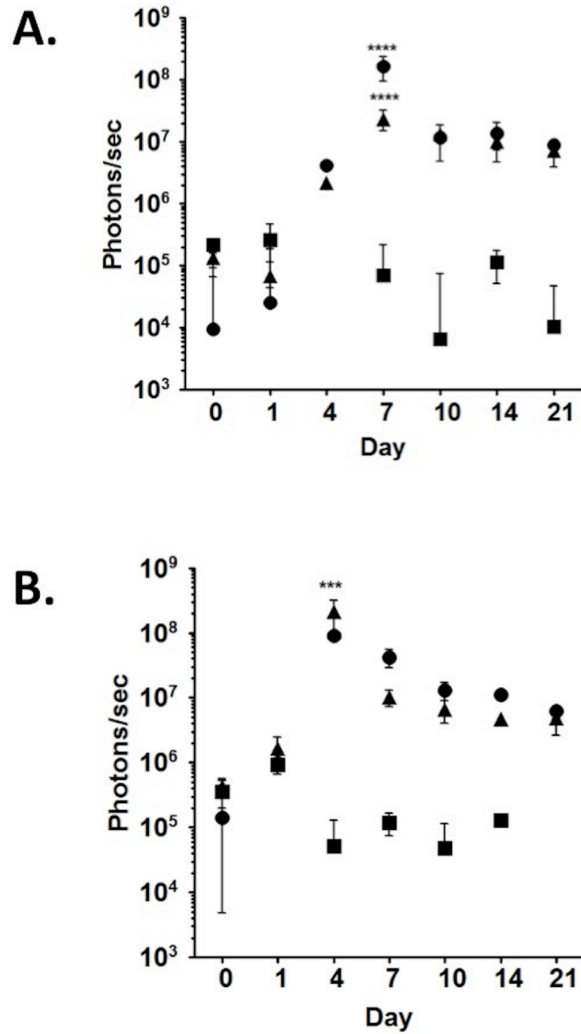


Fig. S2. Quantification of *in vivo* luminescence images of mice infected at a dose of 10^3 (A) and 10^5 (B) as previously described (Hyde *et al.*, 2011). *B. burgdorferi* ML23/pBBE22*luc* is depicted as circles, the $\Delta bba33$ derivative HZO01/pBBE22*luc* as squares, and the genetic complement HZO01/pHZ300 as triangles. Each time point represents the average value from the three mice given luciferin. *** $P < 0.001$; **** $P < 0.0001$.