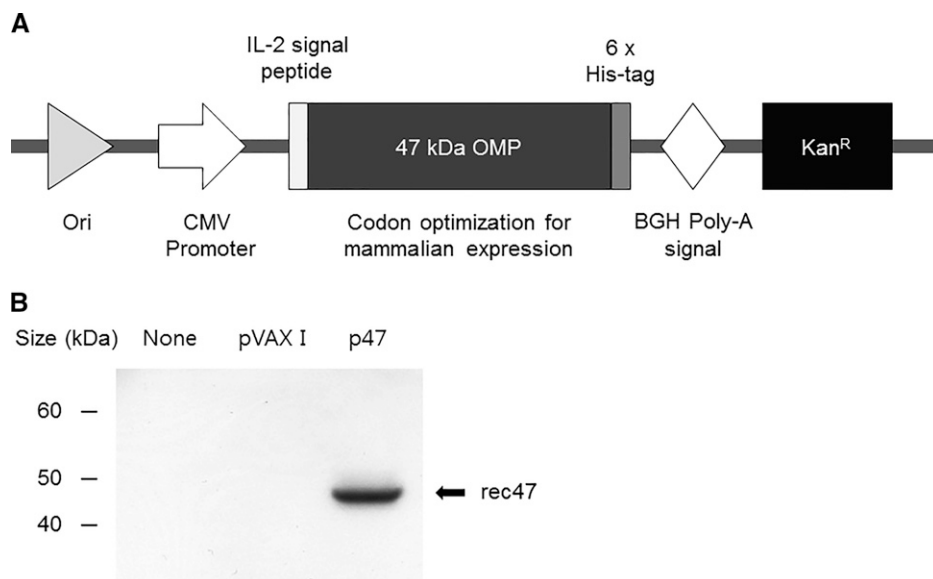
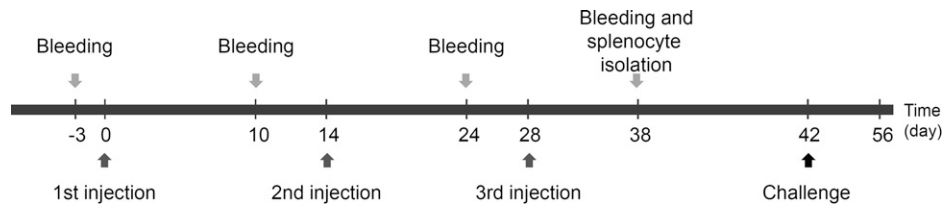


SUPPLEMENTAL FIGURE 1. Construction and sodium dodecyl sulfate polyacrylamide gel electrophoresis (SDS-PAGE) and western blot analyses of the recombinant 47-kDa outer membrane protein (OMP) (rec47). **(A)** Schematic diagram of the expression vector for rec47 production in *Escherichia coli*. A truncated form of the recombinant 47-kDa OMP (amino acids 31–466) was produced. **(B)** SDS-PAGE analysis of the purified rec47. **(C)** Western blot analysis of rec47 using anti-sera from scrub typhus patients confirmed by immunofluorescence assay (IgG titer > 1:2,048).



SUPPLEMENTAL FIGURE 2. Construction and mammalian expression of the 47-kDa outer membrane protein (OMP) DNA vaccine. **(A)** Schematic diagram of the expression vector p47 with codon optimization for mammalian expression. **(B)** Transient expression of the recombinant 47-kDa OMP in hamster kidney fibroblast (BHK-21) cells after transfection with the p47 plasmid. The expression of 47-kDa OMP was detected by using anti-His-tag antibody.



SUPPLEMENTARY FIGURE 3. Time line of the mouse immunization procedure. Ninety one 6-week-old female mice were randomly divided into seven groups according to the treatment they were subjected to: negative control treatment with PBS, rec47 alone, rec47 plus LTB, rec47 plus CT, p47 alone, and p47 plus pB. The immunizations were performed by intranasal administration of rec47 (10 μ g) alone or of rec47 plus LTB/CT (1 μ g), or by intramuscular injection of p47 plasmid (100 μ g) alone or of p47 plus pB (100 μ g).