



**Figure S5.** IgG responses against *B. abortus* A19 LPS and bacterial loads in the spleens of PBS-, C-OPS<sub>Ba</sub>- and C-OPS<sub>Ba</sub>+Al-vaccinated mice following infection with a higher dose of *B. abortus* A19. Mice were immunized with vaccines or PBS as described above. (A) IgG titres against A19 LPS in the sera of mice were measured on 10th day following three immunization s(n=10). Each value represents the mean  $\pm$  standard deviation of log<sub>2</sub>-transformed titres in the sera of individual mice (shown as points) from each group. (B) Mouse spleens were collected 7 days following infection with  $4.16 \times 10^7$  CFU A19 (about three times the dose mentioned above in legend of Figure 3.; the survival rate of PBS-vaccinated mice was 80% after being challenged with this dose of A19). The total bacterial loads were calculated (n=6). Each value represents the mean  $\pm$  standard deviation of log<sub>10</sub>-transformed bacterial loads (CFU/spleen) of individual mice (shown as points) from each group. The unpaired t-test was used to evaluate differences between IgG titres and bacterial loads (\*\*\*\*,  $P < 0.0001$ ; ns, no statistically significant difference).