A systems approach to designing next generation vaccines: combining α-galactose modified antigens with nanoparticle platforms

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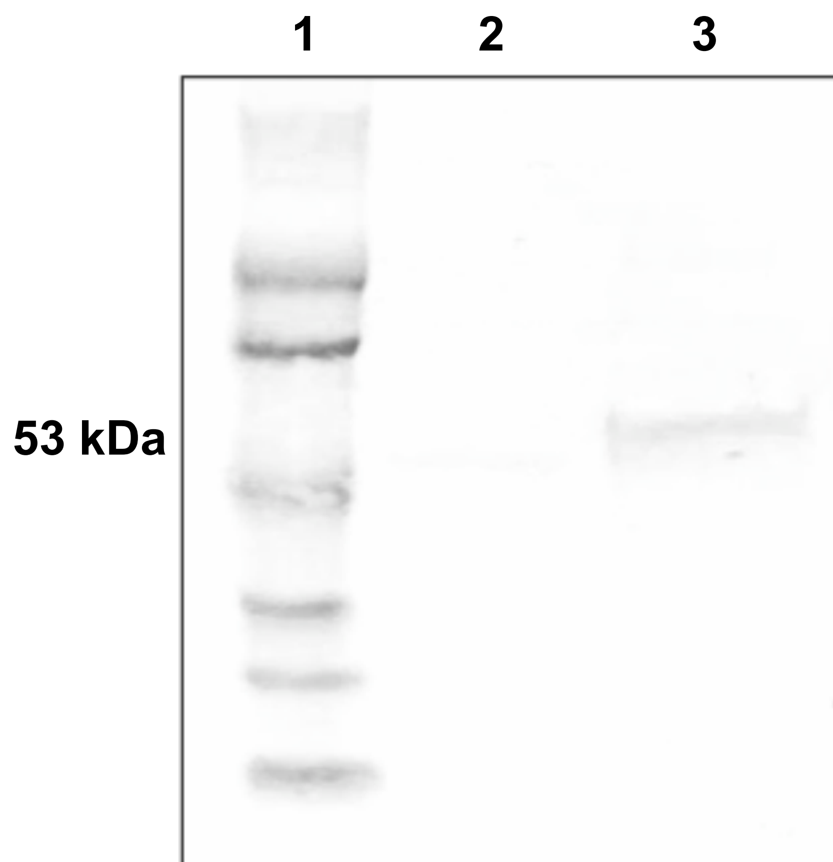
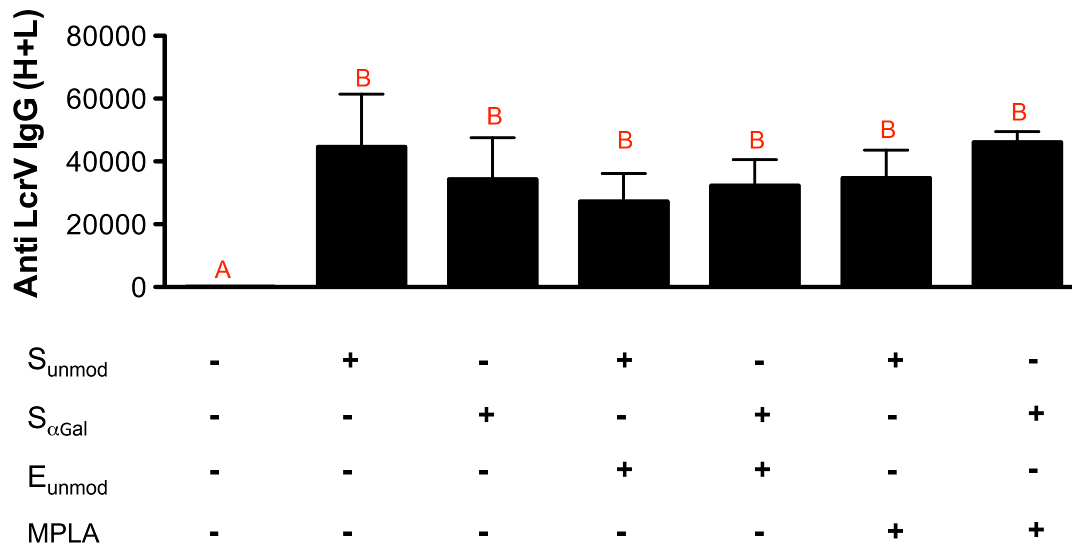
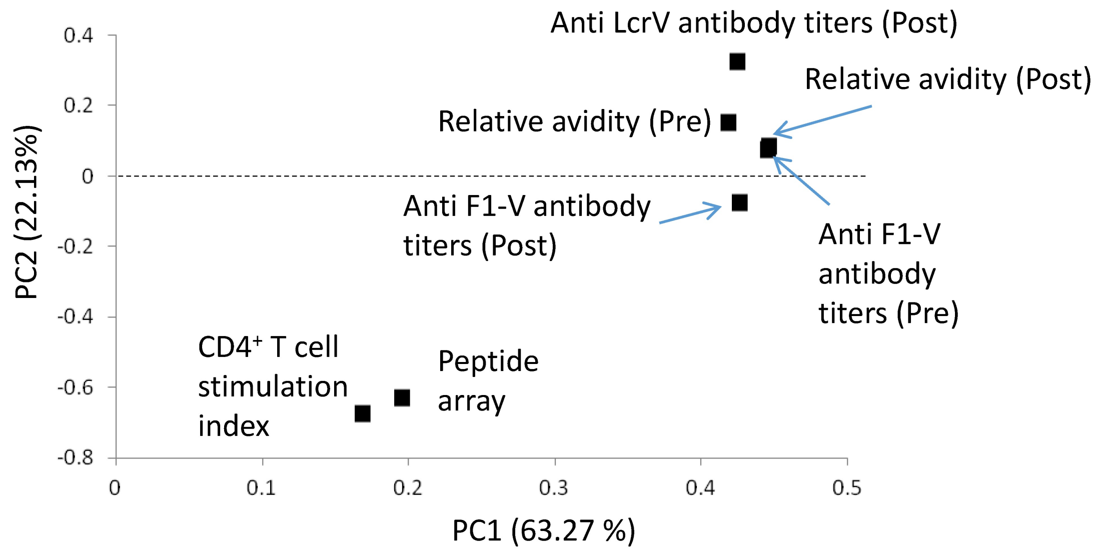


SI Figure 1. Western blot analysis of unmodified F1-V and αGal-modified F1-V confirmed attachment of αGal epitopes. Unmodified F1-V (lane 2) or αGal-F1-V (lane 3) were separated by sodium dodecyl sulfate–polyacrylamide gel electrophoresis (SDS-PAGE) then detected by Western blotting using anti-αGal sera. Lane 1: molecular size standards. Label on the left indicates the expected size of αGal-F1-V.



SI Figure 2. **Anti-LcrV IgG (H+L) antibody titers**. Titers were determined by end-point ELISA 42 days after vaccination. Data are presented as the mean ± SEM of four independent experiments. Treatments identified with different letters are significantly different from one another ($p \leq 0.05$).



SI Figure 3. PCA plot of the loadings, which describes the variables, such as antibody titer, antibody avidity, T cell proliferation, and epitope recognition, utilized to draw inferences about optimal vaccine formulations.