

## **Description of Additional Supplementary Files**

File Name: Supplementary Data 1.

Description: Table showing the two-sided Spearman correlations between the expression levels of differentially expressed genes (DEGs) post-first vaccine dose and EBOV glycoprotein-binding antibodies ZEBOV-specific IgG antibody levels measured after vaccination.

File Name: Supplementary Data 2.

Description: Table showing the two-sided Spearman correlations between the expression levels of differentially expressed genes (DEGs) post-second vaccine dose and EBOV glycoprotein-binding antibodies levels measured after vaccination.

File Name: Supplementary Data 3.

Description: Table of the cell type counts per sample in the single cell RNA-sequencing data

File Name: Supplementary Data 4.

Description: Table of significant enriched pathways (FDR <0.05) from gene set enrichment analysis using a one-sided permutation-based Kolmogorov–Smirnov statistic (C5 biological process) of differentially expressed genes in pseudobulk plasma cells at baseline compared with 10 days after the first dose of vaccine.

File Name: Supplementary Data 5.

Description: Table of significant enriched pathways (FDR <0.05) from gene set enrichment analysis using a one-sided permutation-based Kolmogorov–Smirnov statistic (C5 biological process) of differentially expressed genes in pseudobulk plasma cells at baseline compared with 7 days after the second dose of vaccine.