

**Supplementary Figure 1. (A)** Gating strategy for memory B cells within PBMC samples from trial participants. Memory B cells were defined as CD3-CD14-CD19+ IgG+CD27+ B cells. (B) Representative staining of pre- and post-vaccination memory B cells from a single representative trial participant with H1 and H5 probes. (C) Non-specific background staining of HA probes to memory B cells was assessed by staining healthy donor PBMCs (N=10) with no probes (squares), mock probes (triangles; streptavidin-fluorophore and protease inhibitors alone) or H1 and H5 probes.