

Figure. S1 Surface HA glycan was compared and analyzed through the evolution of H3N2 strains. (A) Structure representation of 1968-2012 H3N2 vaccine strains recommended by WHO with N-glycans attached at their N-glycosylation sites. The protein structure of HAs was created by Discovery Studio and modeled using PyMOL, colored yellow, and the N-linked glycans are displayed in green. All N-glycans were modeled by GlyProt. (B) The details of putative N-linked glycosylation sites for H3N2 vaccine strains. (C) The antigenic epitopes and conserved sites are depicted at the surface of the hemagglutinin protein and overlap with the N-glycosylation sites.

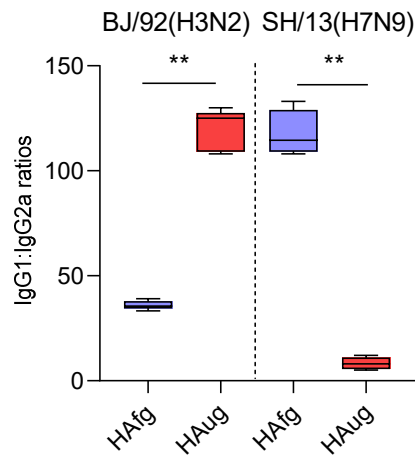


Figure. S2 Deglycosylated modified HA elicits a lower IgG1/IgG2a ratio than HAfg against H7 viruses. The IgG1/IgG2a isotype ratio were measured two weeks after the last vaccination with plates coated with BJ/92 and SH/13. Data are presented as the mean \pm SEM. The results were calculated with Prism software using Student's t test; significant differences are marked as * $P < 0.05$; ** $P < 0.01$; *** $P < 0.001$.