

Supplementary Data

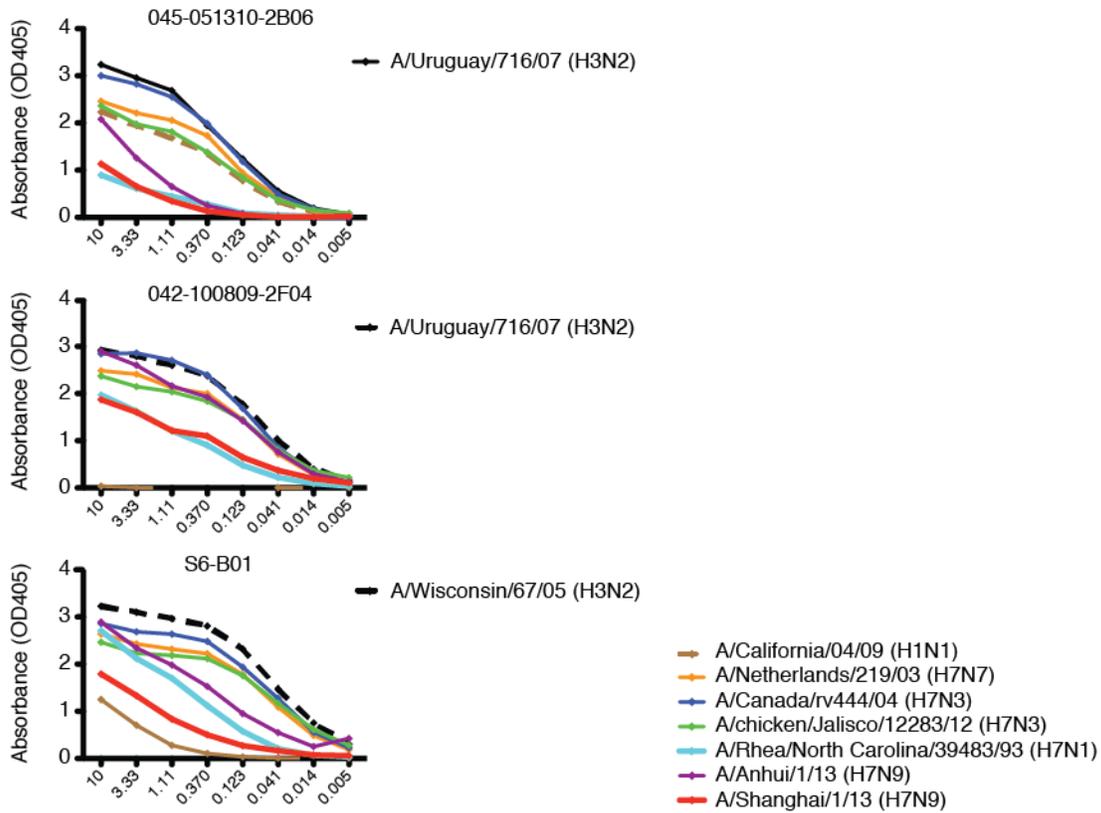


Figure S1: Binding of the neutralizing antibodies to various H7 strains. ELISA binding curves for multiple recombinant HA proteins are shown. The dotted line corresponds to the strain the antibody was originally induced by. Data are representative of three independent experiments.

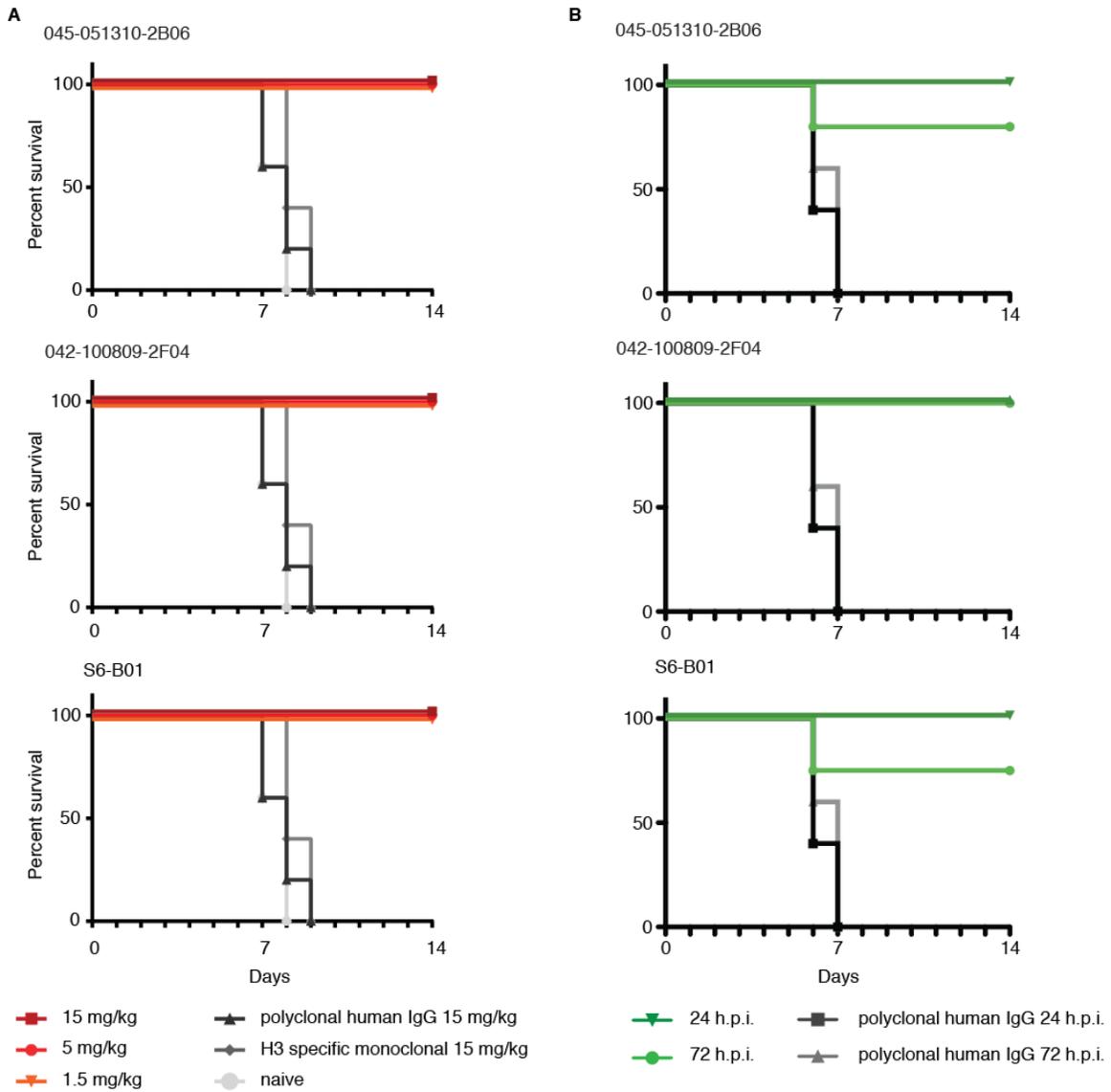


Figure S2: Passive transfer of the H7N9 neutralizing antibodies in mice. Survival curves of (A) 6-8 week old female BALB/c mice (5 per experimental condition) injected intraperitoneally with 1.5, 5 or 15 mg/kg of antibody and then infected with a lethal dose (7.5 LD₅₀) of A/Shanghai/1/2013 virus (B) 6-8 week old female BALB/c mice (5 per experimental condition) infected with a lethal dose (7.5 LD₅₀) of A/Shanghai/1/2013 virus and then injected intraperitoneally with 15 mg/kg of antibody (24 or 72 hours post-infection). Control groups are the same for all three panels.

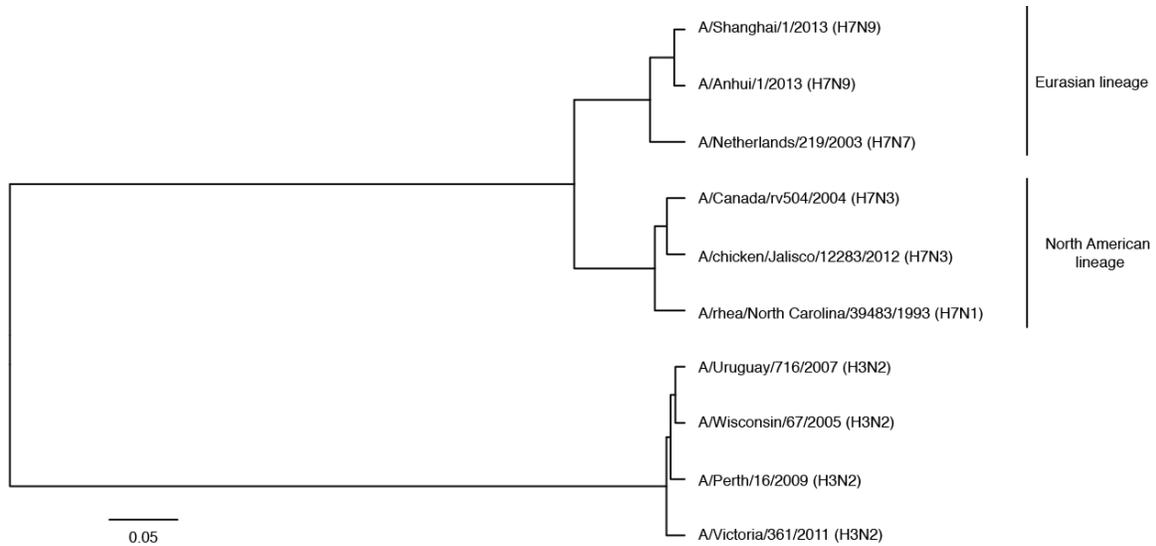


Figure S3: Phylogeny of selected H7 and H3N2 subtype hemagglutinins. H7 subtypes from both the Eurasian and North American lineages are shown. Multiple alignments were performed using the CLUSTALW algorithm. Phylogenetic rooted tree was constructed using the neighbor-joining method and was visualized using FigTree v1.4.0 software, with amino acid sequences of full length HAs.

	vaccine	strain
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045051310-2B06	pandemic H1N1 2009	A/California/07/2009
042100809-2F04	TIV 2009/2010	A/Uruguay/716/2007 (H3N2)
S6-B01	TIV 2006/2007	A/Wisconsin/67/2005 (H3N2)

Table S1: Information on the strain and year of influenza vaccination.

	Heavy chain (V/J)	Light chain (V/J)
045051310-2B06	VH1-18/JH6	VK3-11/JK5
042100809-2F04	VH3-23/JH5	VK4-1/JK4
S6-B01	VH1-18/JH6	VK3-20/JK2

Table S2: Repertoire of the protective antibodies.