

## Supporting information

# Self-assembling nanoparticle vaccine targeting the conserved epitope of influenza virus hemagglutinin stem elicits cross-protective immune response

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**Table S1. Primer information**

Primer	Gene sequence (5'-3')
P1	AAGAAGGAGATATACATATGGACCTTAAGTCCACCCAGGCT
P2	TCTCCAGATCCTGGATACGAGAACCGCCAATAACACGATT
P3	ATCGTGTTATTGGCGTTCTCGTATCCAGGATCTGGAGAAGTAC
P4	GTGGTGGTGGTGGTCTCGAGTTAATGGTGATGGTGATGATGAGA
P5	GGAATCCATATGCTGAGCAAGGACATCATC

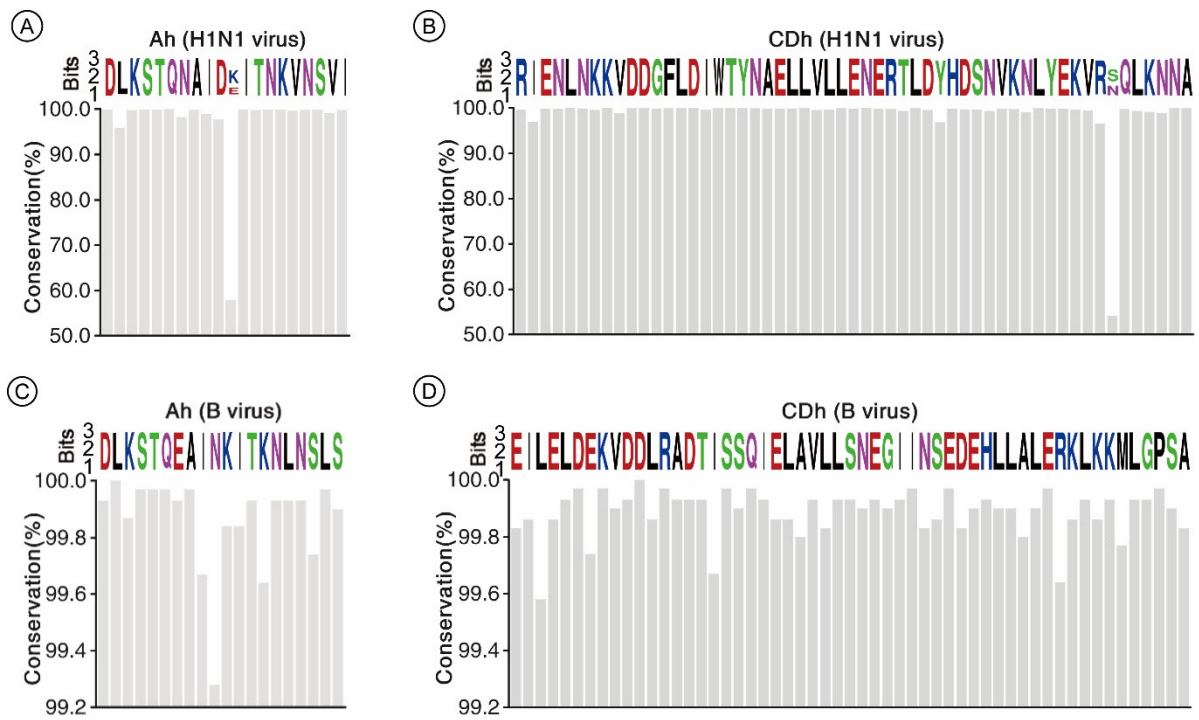


Figure S1. Analysis of sequence conservation. Ah (A and C) and CDh (B and D) from H1N1 and B influenza viruses. The plot shows the sequence conservation level in bits (sequence logo) and percentages (histogram).

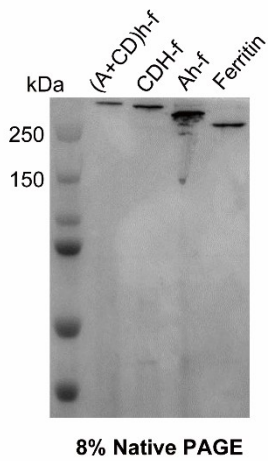


Figure S2. Native PAGE analysis of protein NPs. Native PAGE (8%) and coomassie blue staining of ferritin, Ah-f, CDh-f, and (A+CD)h-f NPs.

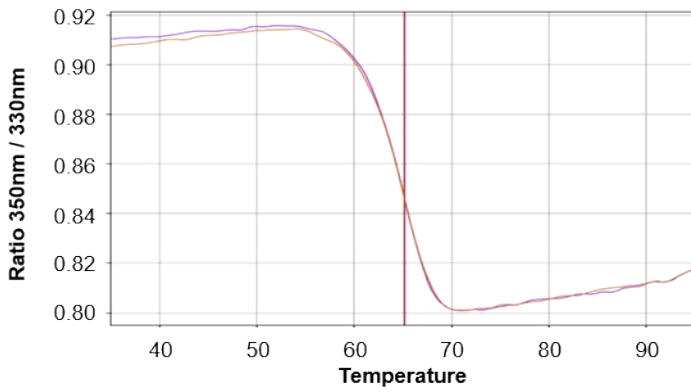


Figure S3. Unfolding profiles of freshly purified CDh-f (red) and the CDh-f stored at  $-80^{\circ}\text{C}$  for 6 months (purple).

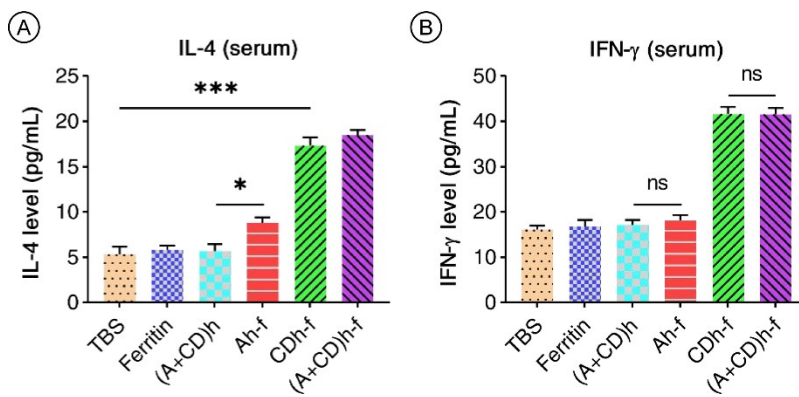


Figure S4. Concentrations of cytokines IL-4 and IFN- $\gamma$  in sera from immunized mice. (A) The concentration of IL-4,  $n = 6$ . (B) The concentration of IFN- $\gamma$ ,  $n = 6$ . NS: not significant,  $*P < 0.05$ ,  $***P < 0.001$ .

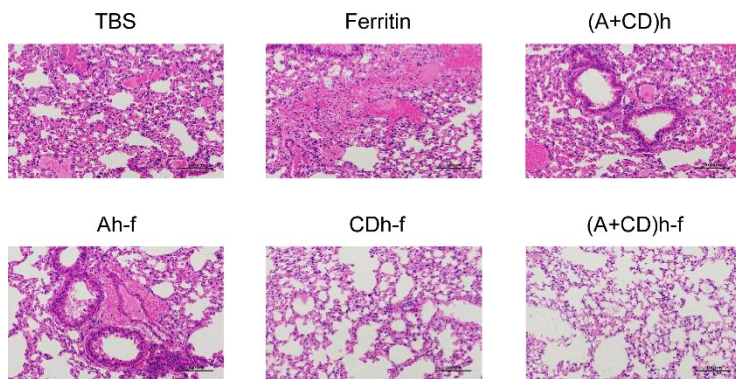


Figure S5. Lungs were collected on Day 4 post challenge for lung injury analysis by H&E staining.