Electronic Supplementary Information

Assemble Hepatitis E Vaccine by 'in situ' Growing Gold Clusters as Nano Adjuvant: An Efficient Way to Enhance the Immune Responses of Vaccination

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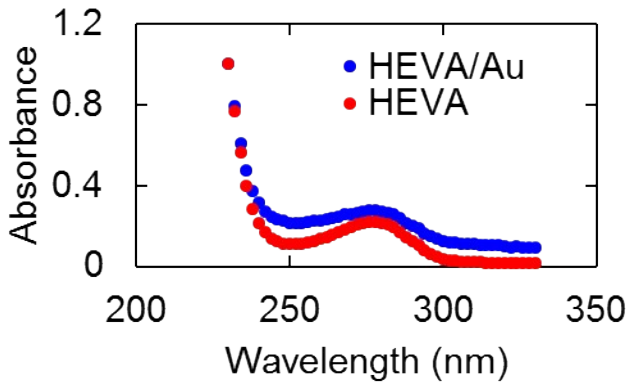

Fig. S1. UV/Vis absorbance of HEVA and HEVA/Au. Both HEVA and HEVA/Au have a major absorbance peak at 280 nm.

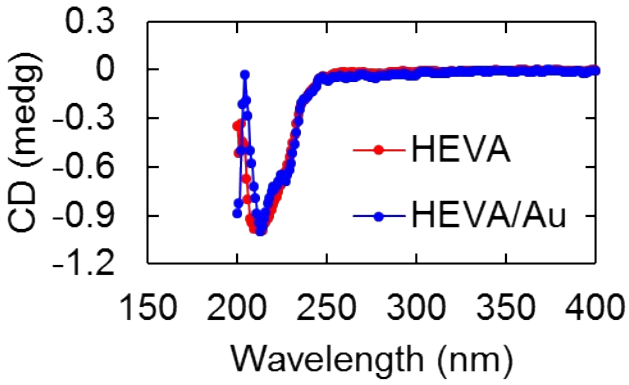

Figure S2. Circular dichroism (CD) spectroscopy of HEVA and HEVA/Au, showing the Au cluster didn't change the secondary structure of the vaccine.

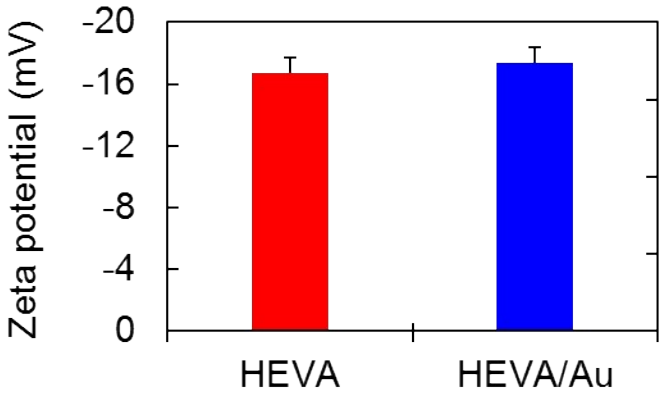

Figure S3. Surface zeta potential of HEVA and HEVA/Au showing the Au cluster have no effects on the surface charge of the vaccine. The zeta potential was determined by DLS.

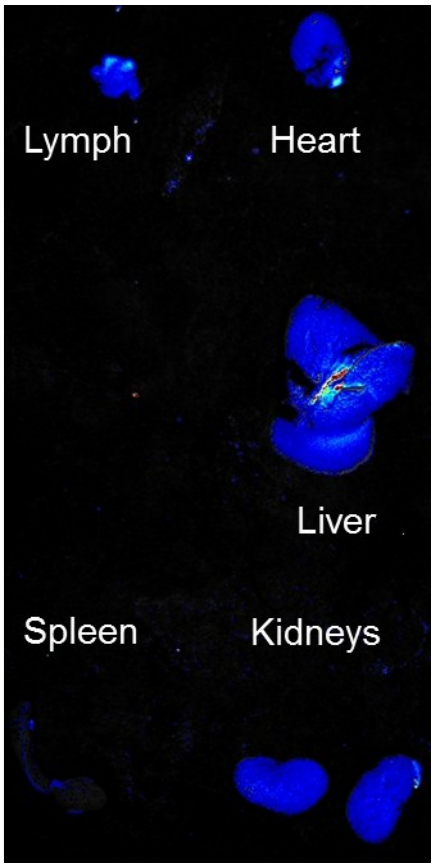

Figure S4. *Ex vivo* imaging of different organs from mouse treated with HEVA/Au after injection for 6 h. Excitation wavelength, 350 nm; Emission wavelength, 450 nm. This image showed the *in vivo* imaging capability of HAVA/Au, which can be used for the monitoring of the biodistribution of vaccine.

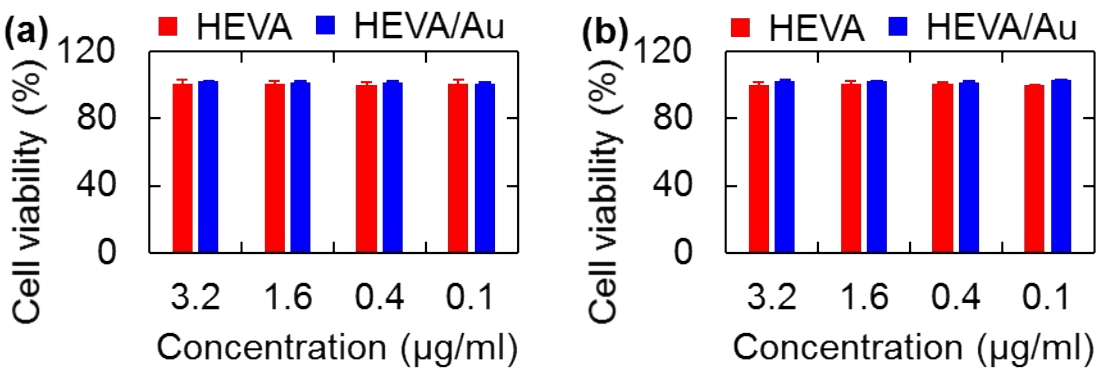

Figure S5. *In vitro* cell viability of HepG2 cells (a) and iDC cells (b) after incubating with low concentrations of both HEVA and HEVA/Au for 24h. The cell viability was determined by CCK-8 assay.