

Supporting Information

Biomimetic Approach to Hormone Resistant Prostate Cancer Cell Isolation Using Inactivated Sendai Virus (HVJ-E)

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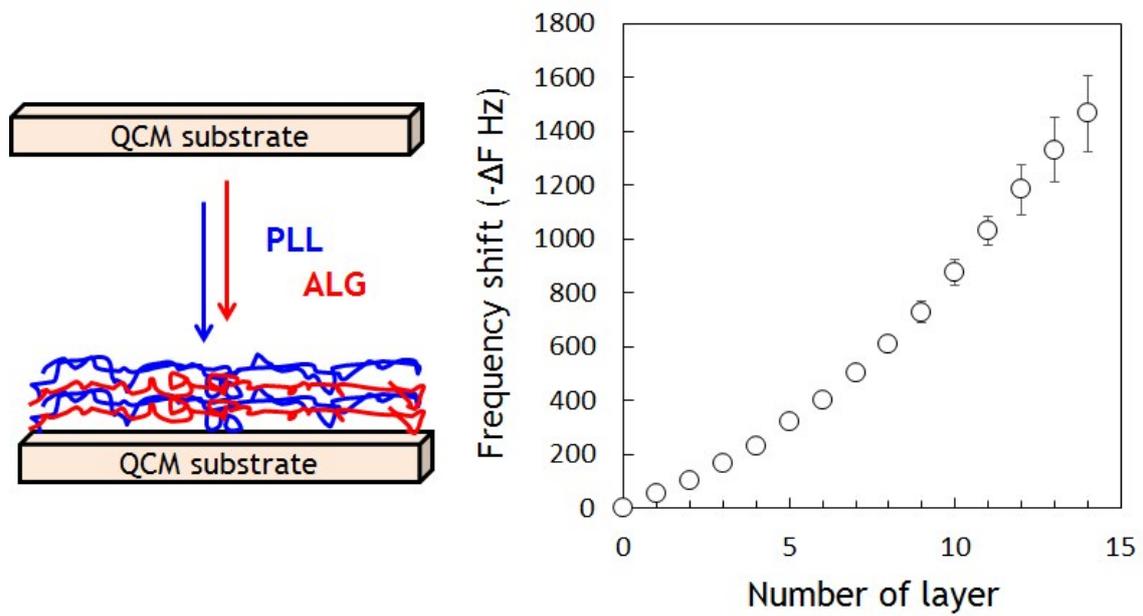


Figure S1. The Layer-by-Layer fabrication onto substrate with cationic poly-L-lysine (PLL) and anionic alginic acid (ALG) by quartz crystal microbalance (QCM).

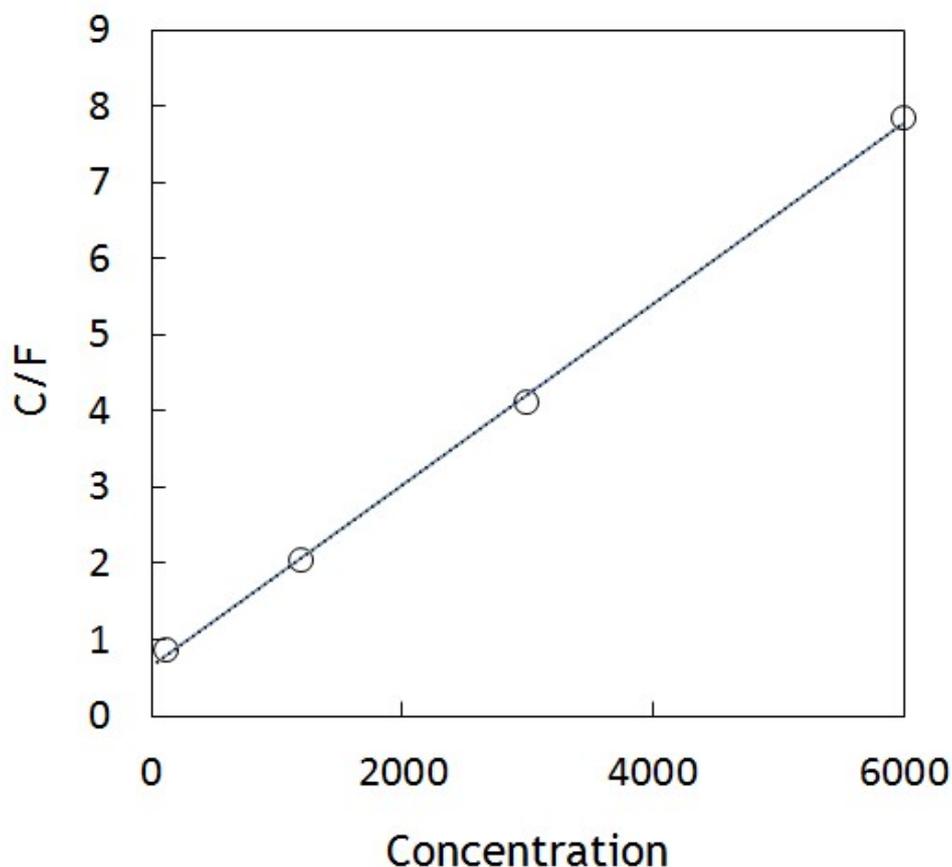


Figure S2. The concentration dependence of adsorption amount of HVJ-E onto the (PLL-ALG)₆-PLL multilayer films. The maximum adsorption amount could be fitted to the Langmuir isotherm which undernoted formula¹

$$\frac{C}{\Delta F} = \frac{1}{\Delta F_{max}} \times C + \frac{1}{\Delta F_{max} K_{ads}}$$

Where C and F mention concentration of HVJ-E solution and frequency shifts from HVJ-E adsorption on QCM substrate, respectively.

1 K. Uto, K. Yamamoto, N. Kishimoto, M. Muraoka, T. Aoyagi and I. Yamashita, *J. Mater. Chem.*, 2008, **18**, 3876.

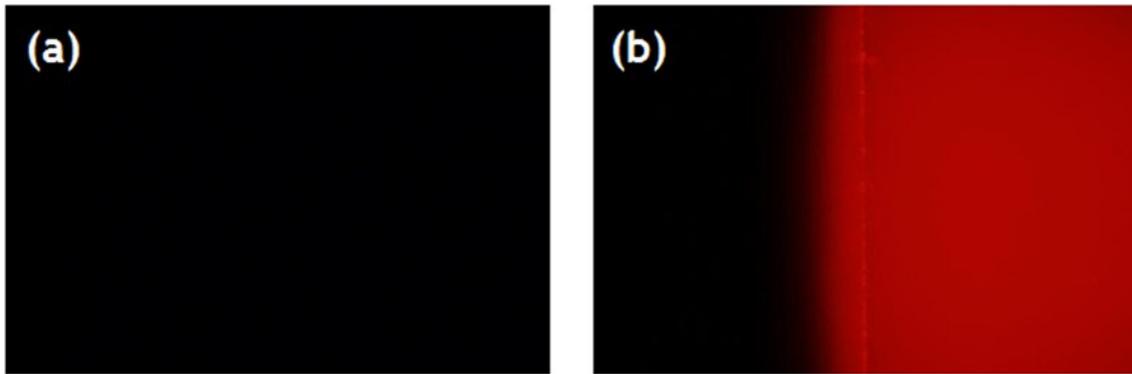


Figure S3. Successful immobilization of HVJ-E was confirmed using pKH-26 labelled HVJ-E. (a) Before and (b) after adsorption.

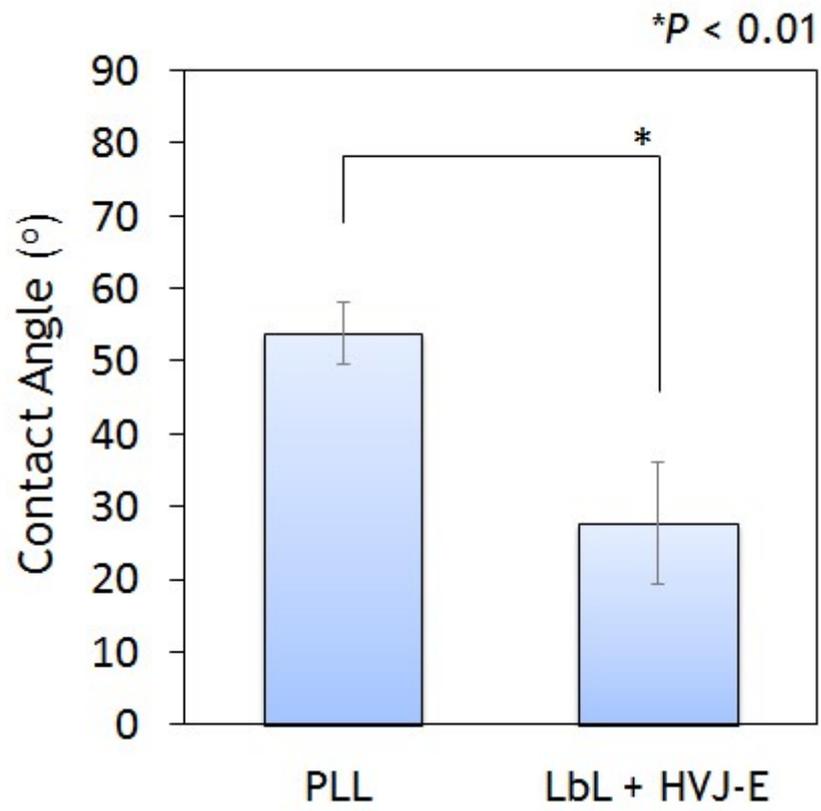


Figure S4. Surface contact angle measurement was performed for PLL coated and HVJ-E (6000 HAU/mL) coated substrate.

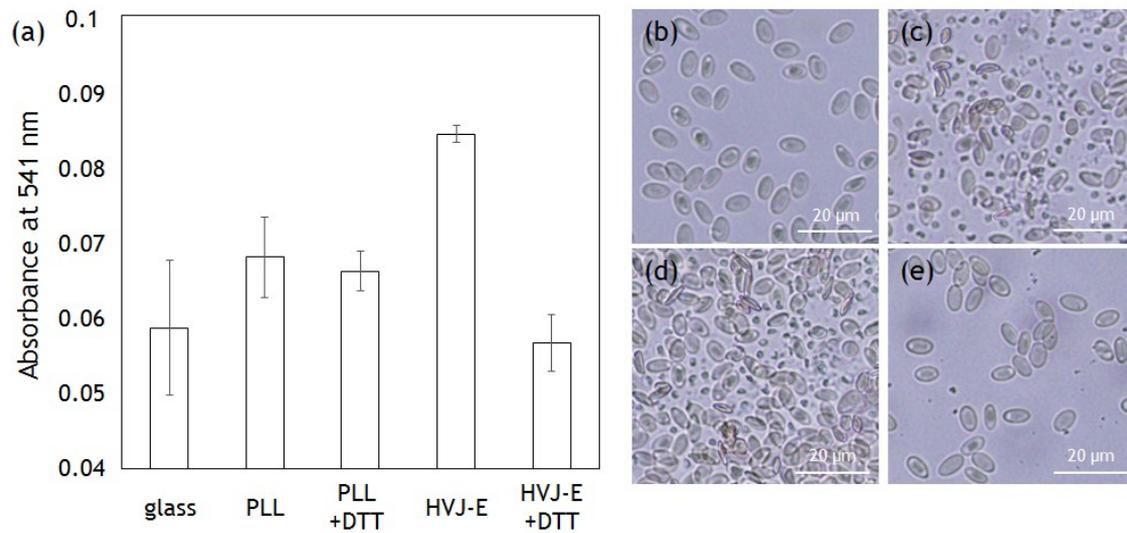


Figure S5. (a) In vitro haemolytic assay to compare the RBC membrane disruption ability of HVJ-E immobilized surface. The degree of RBC membrane disruption was quantified by measuring the absorbance at 541 nm of the hemoglobin released into the solution by lysed cells. Optical microscope images of RBC on (b) glass, (c) PLL outermost LbL surface, (d) HVJ-E immobilized surface and (e) in the presence of DTT.

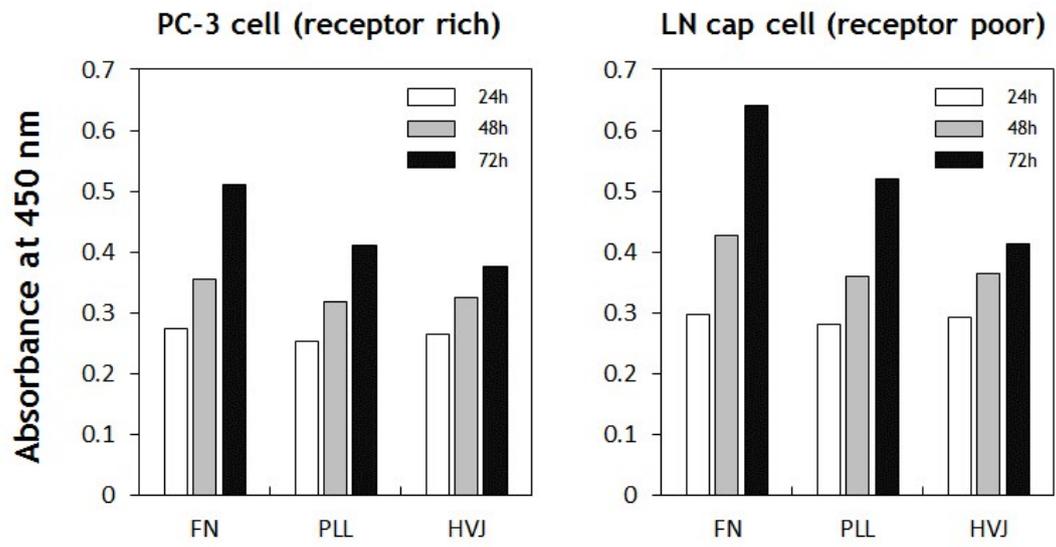


Figure S6. Cell proliferation assays for PC-3 and LN-Cap cells on FN-coated glass, PLL outermost LbL coated glass and HVJ-E coated glass cover slips for 3 days examined by cell counting kit-8 assays.