

Electronic Supplementary Information

Nanospatial Effect of Citric Acid-Coordinated Hydroxyapatite Nanoparticle Films on Protein Adsorption and Cell Adhesion States

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Figure S1

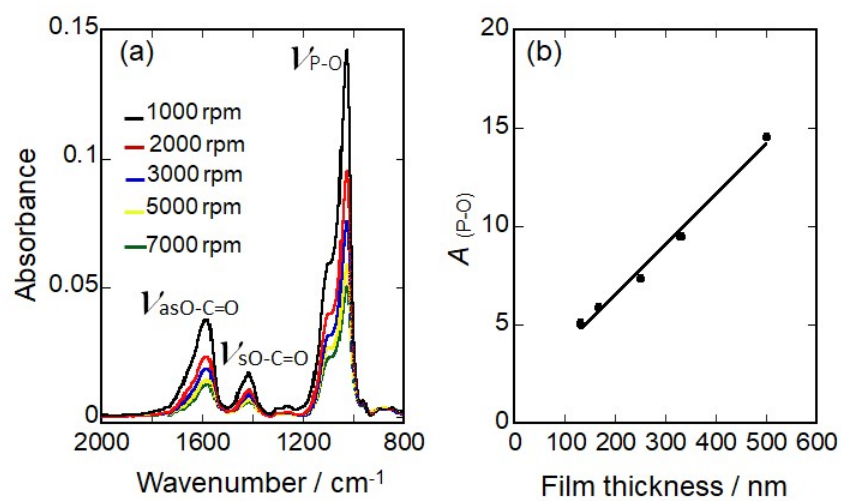


Fig. S1 (a) The changes in absorbance of 3Cit/HA prepared at different spinning speeds and (b) the calibration curve between $A_{\text{(P-O)}}$ and film thickness ($R^2=0.9896$).

Figure S2

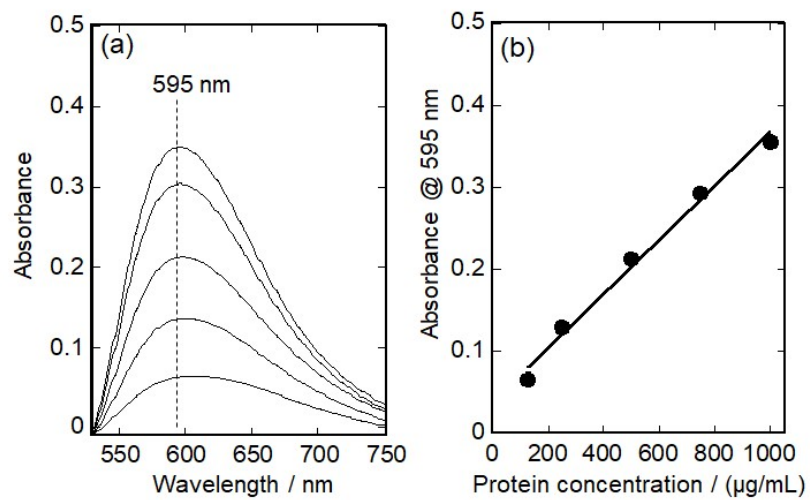


Fig. S2 (a) UV-Vis absorption spectra of the BSA aqueous solution at different concentrations. (b) The calibration curve between the protein concentration and absorbance ($R^2 = 0.9920$).

Figure S3

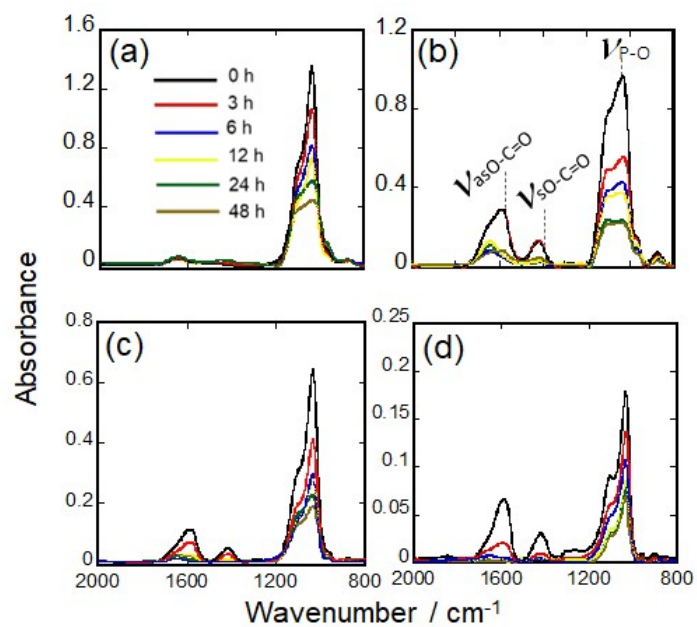


Fig. S3 FT-IR spectra (2000–800 cm^{-1}) of (a) 0Cit/HA, (b) 1Cit/HA, (c) 2Cit/HA and (d) 3Cit/HA with different immersion time.

Figure S4

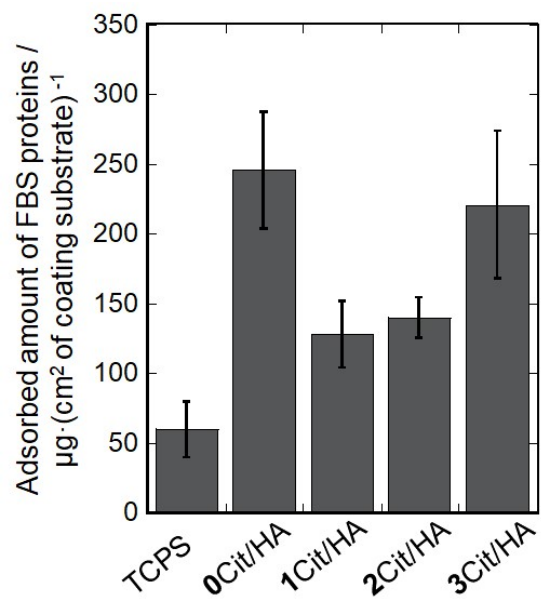


Fig. S4 Adsorbed amount of FBS proteins ($\mu\text{g} \cdot \text{cm}^{-2}$) on TCPS and Cit/HA nanoparticle films.

Figure S5

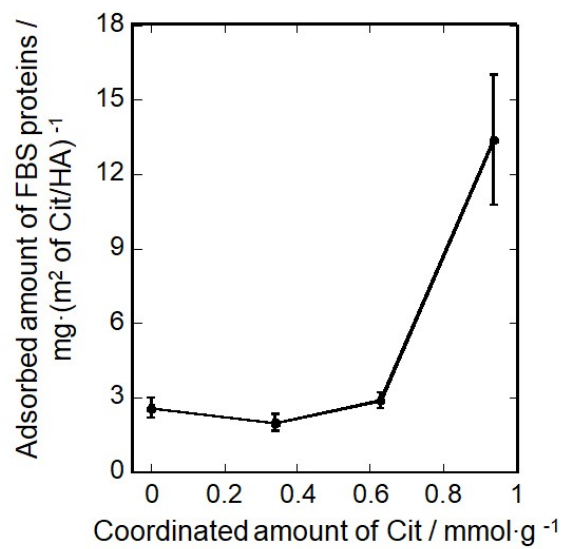


Fig. S5 Adsorbed amount of FBS proteins (mg·m⁻²) on Cit/HA nanoparticle films with the coordinated amount of Cit.

Figure S6

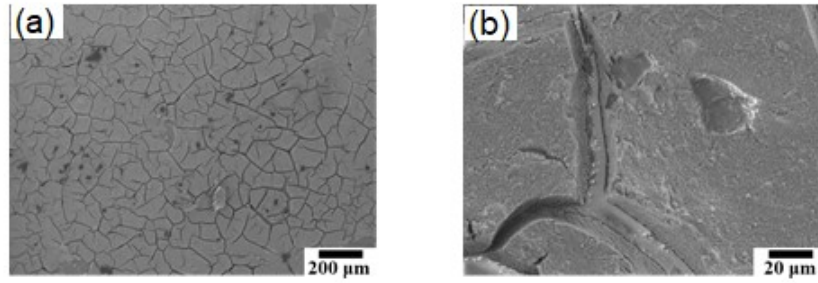


Fig. S6 (a) Low- and (a) high-magnification SEM images of the cell adhesion on 0Cit/HA at the culture time of 48 h.

Figure S7

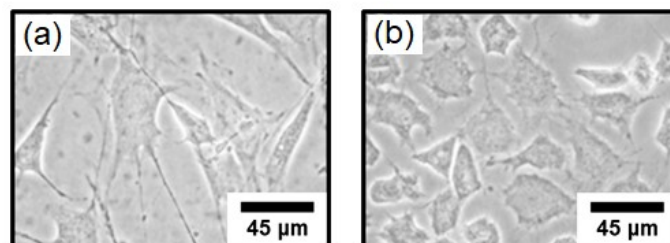


Fig. S7 Micrographs for the observation of cell morphological changes on (a) 3Cit/HA and (b) TCPS at the culture time of 48 h.