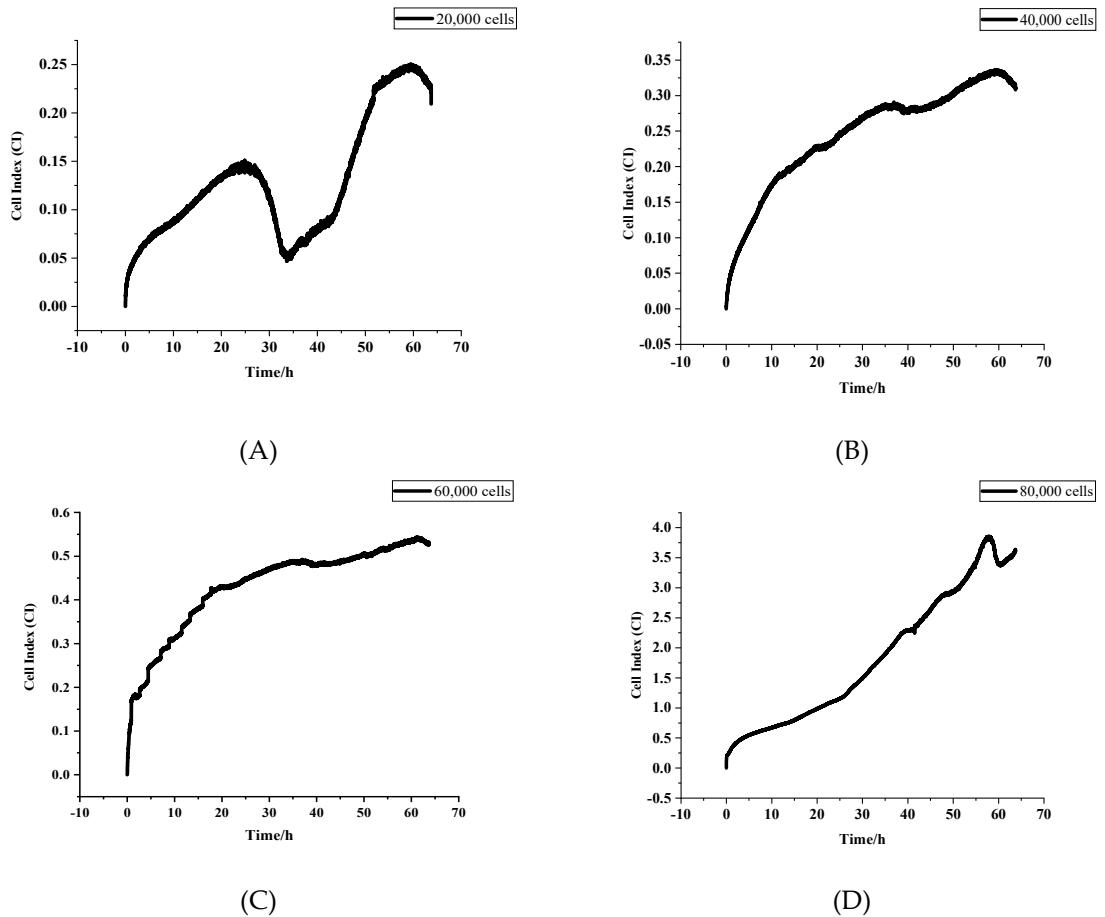
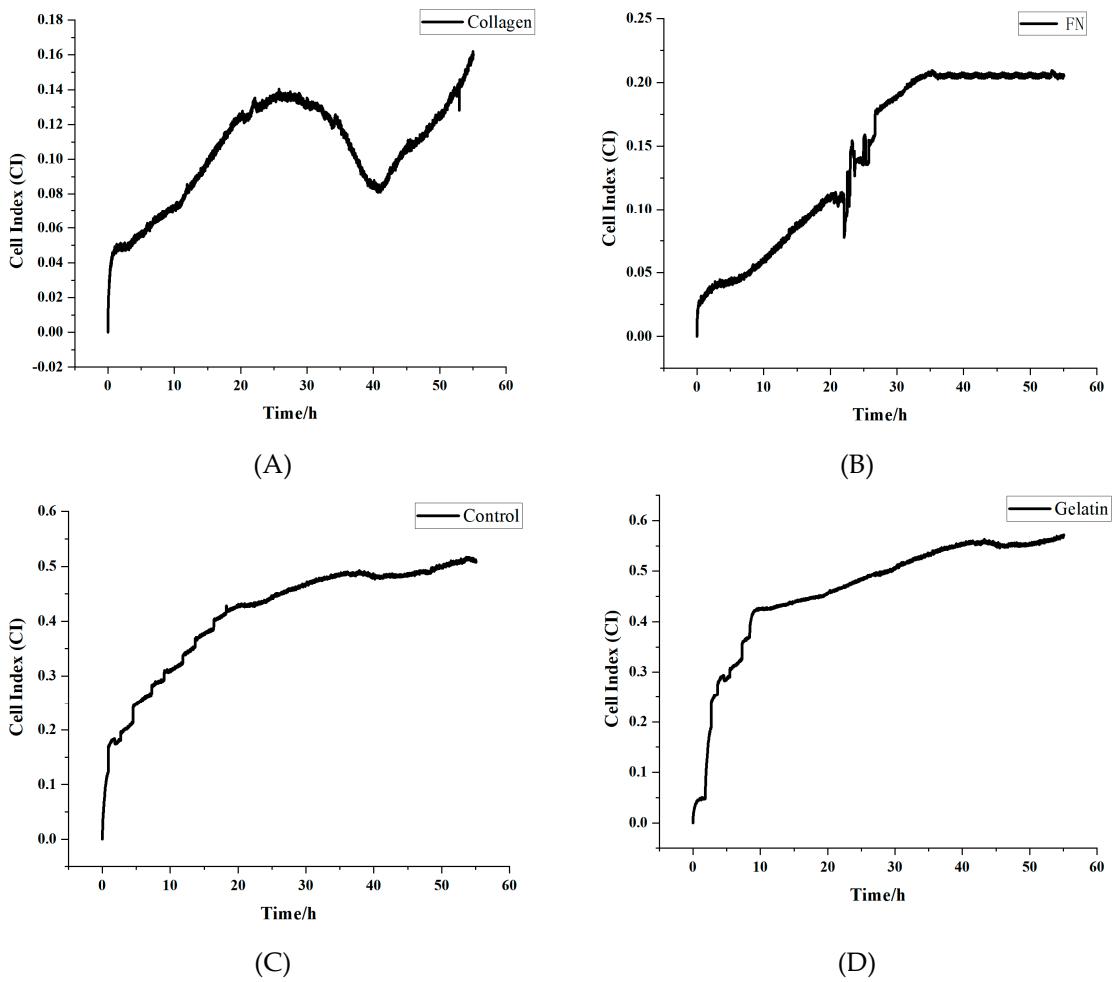


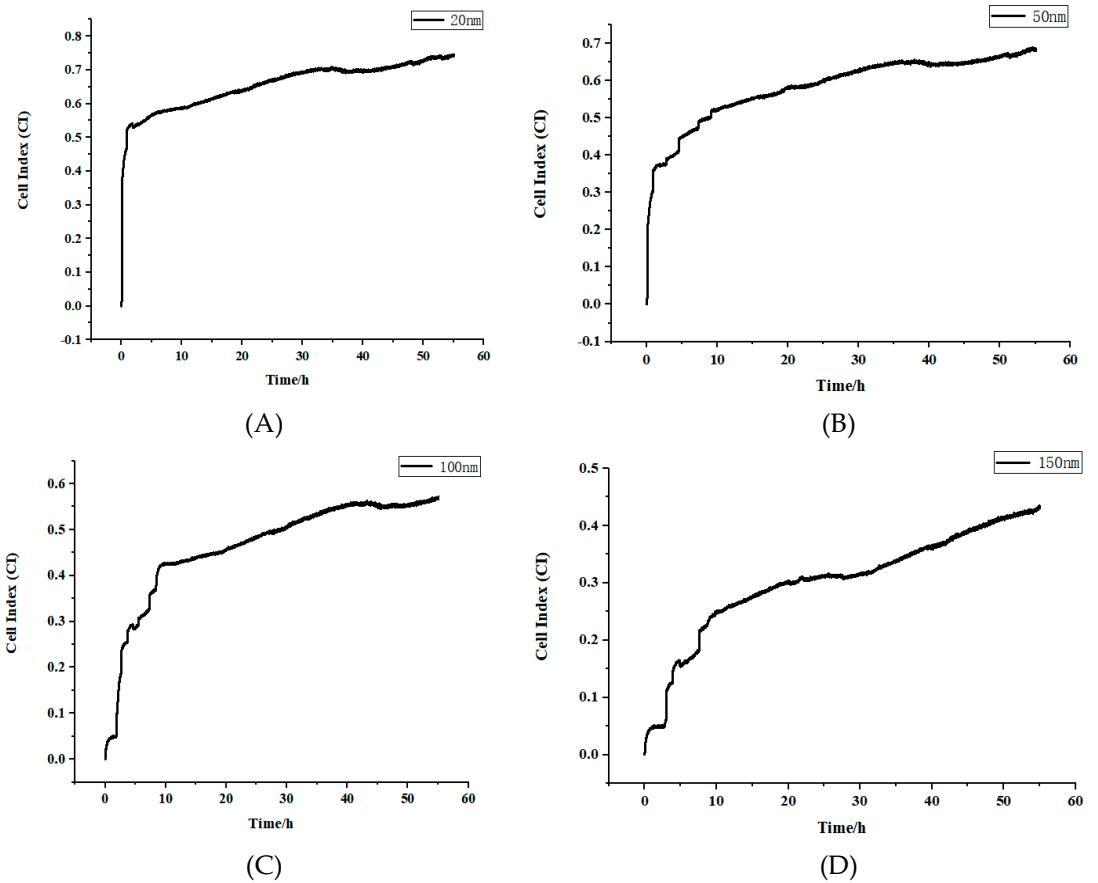
## Supplementary Figures



**Figure S1.** Comparison of cell indices at different cell densities (Subplot). (A)Cell index plot for 20,000 cells; (B) Cell index plot for 40,000 cells; (C)Cell index plot for 60,000 cells; (D) Cell index plot for 80,000 cells.



**Figure S2.** Comparison of cell indices under different chip modification schemes (Subplot). (A)Cell index plot for collagen modification; (B) Cell index plot for FN modification; (C) Cell index plot for bare gold electrodes; (D)Cell index plot for gelatin modification.



**Figure S3.** Comparison of cell indices at different chip thicknesses (Subplot). (A)Cell index plot at 20nm thickness; (B) Cell index plot at 50nm thickness; (C) Cell index plot at 100nm thickness; (D) Cell index plot at 150nm thickness.