Supporting information

Combinational Effect of Cell Adhesion Biomolecules and Their Immobilized Polymer Property to Enhance Cell-selective Adhesion

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Running title: Cell-selective adhesion by biomolecule-polymer combination

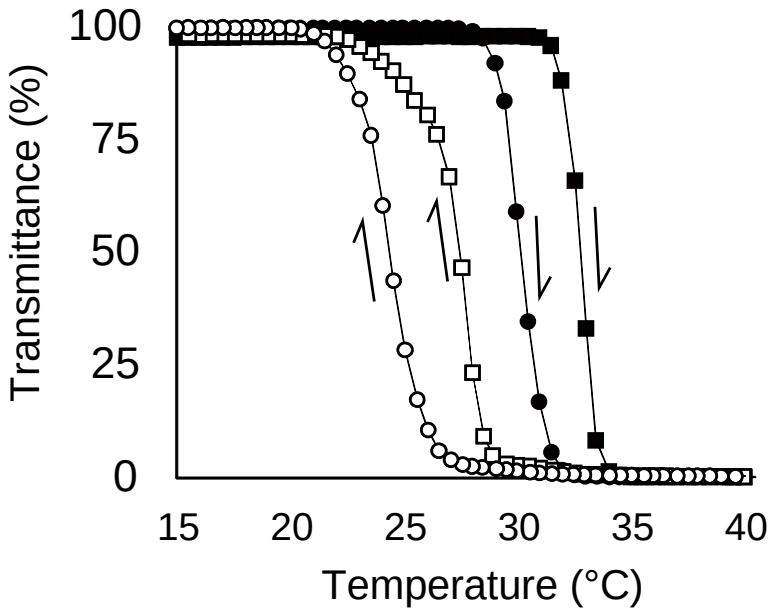

FIGURE S1: Temperature-dependent transmittance changes for free poly(NIPAAm-*co*-CIPAAm) in a PBS buffer. (open squares) poly(NIPAAm-*co*-CIPAAm) from 40 °C to 15 °C, (open circles) poly(NIPAAm-*co*-CIPAAmBz) from 40 °C to 15 °C, (closed squares) poly(NIPAAm-*co*-CIPAAm) from 15 °C to 40 °C, and (closed circles) poly(NIPAAm-*co*-CIPAAmBz) from 15 °C to 40 °C.

Lower critical solution temperature (LCST) was measured by the temperature-dependent transmittance changes of the free polymer. Transmittance of the polymer in PBS at 500 nm was continuously monitored at a heating and a cooling rate of 0.5 °C min^{-1} using a UV-visible spectrometer (V-550, JASCO International Co, Ltd, Tokyo, Japan).

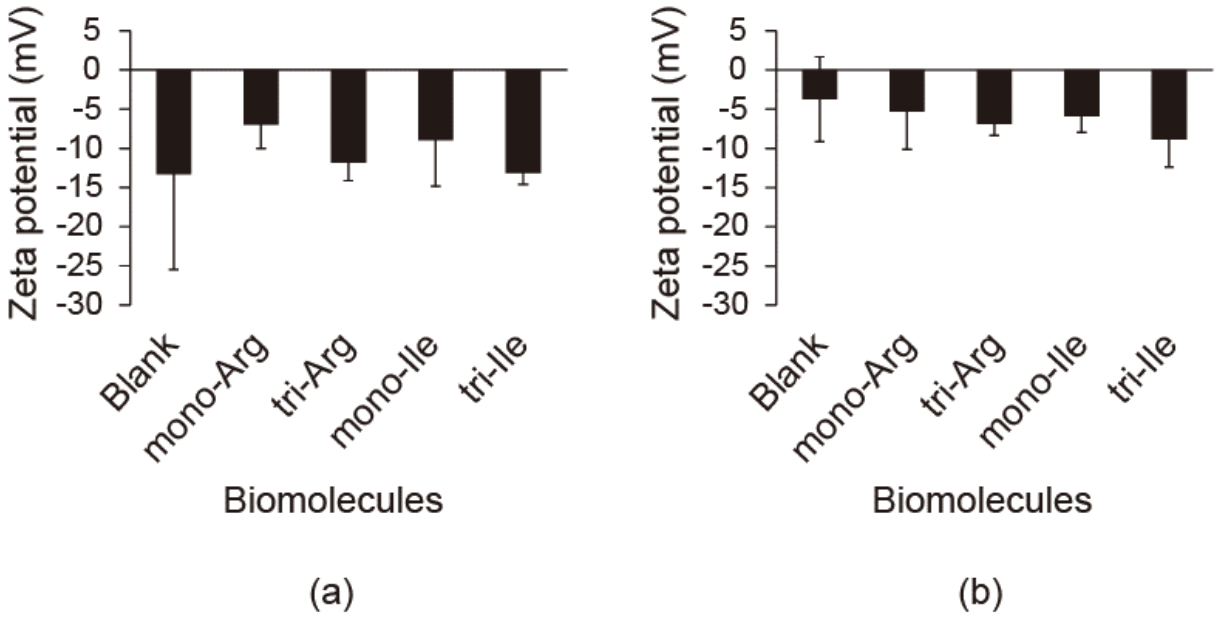

FIGURE S2: Zeta potential analysis of the fabricated substrate surfaces at (a) 37 °C and (b) 20 °C.

The zeta potential of the fabricated polymeric surfaces was measured by a DelsaNano HC Particle Analyzer. Prepared substrates were placed onto a measurement cell in the electrometer. The zeta potentials of the surfaces were measured at 37 °C. The results of the zeta potential are expressed as the mean of three measurements with the standard deviation (SD).

TABLE S1: Adsorption of fibronectin and collagen type IV on the cell assay platform at 37 °C and 20 °C.

Average intensity (-)		Blank	RGDS	mono-Arg	tri-Arg	mono-Ile	tri-Ile	Background
Fibronectin	37°C	0.086 ± 0.005	0.087 ± 0.010	0.095 ± 0.002	0.098 ± 0.007	0.090 ± 0.003	0.107 ± 0.006	0.086 ± 0.005
	20°C	0.082 ± 0.005	0.082 ± 0.003	0.088 ± 0.003	0.090 ± 0.006	0.088 ± 0.005	0.104 ± 0.006	0.079 ± 0.004
Collagen type IV	37°C	0.097 ± 0.011	0.101 ± 0.003	0.110 ± 0.003	0.107 ± 0.002	0.110 ± 0.003	0.111 ± 0.004	0.106 ± 0.005
	20°C	0.080 ± 0.002	0.079 ± 0.002	0.078 ± 0.005	0.079 ± 0.006	0.077 ± 0.003	0.078 ± 0.004	0.076 ± 0.003

Adsorption of fibronectin and collagen type IV was measured with fluorescently labeled fibronectin and collagen by Fluoroskan Ascent (type 374; Labsystems, Helsinki, Finland) at 646-nm excitation and 678-nm emission. The fluorescently labeled fibronectin or collagen was dissolved in PBS (67 mg/L). The solution was dropped onto fabricated substrates. Substrates were incubated for 15 min at 37 °C, washed once with PBS at 37 °C, and the fluorescence intensity of the substrates was immediately measured using Fluoroskan Ascent. For the protein adsorption assay in hydrophilic conditions, the substrates were transferred into PBS at 20 °C and incubated for 15 min. Then the fluorescence intensity of the substrates was measured.