Supplementary Materials

Separation and Washing of Candida Cells from White Blood Cells Using Viscoelastic Microfluidics

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Design of two-step microfluidic devices

Two-step microfluidic devices were used for viscoelastic closed-loop separation, concentration, and co-flow washing. Figure S1 shows the exact device design and channel size of the first-step closed-loop device and the second-step co-flow device.

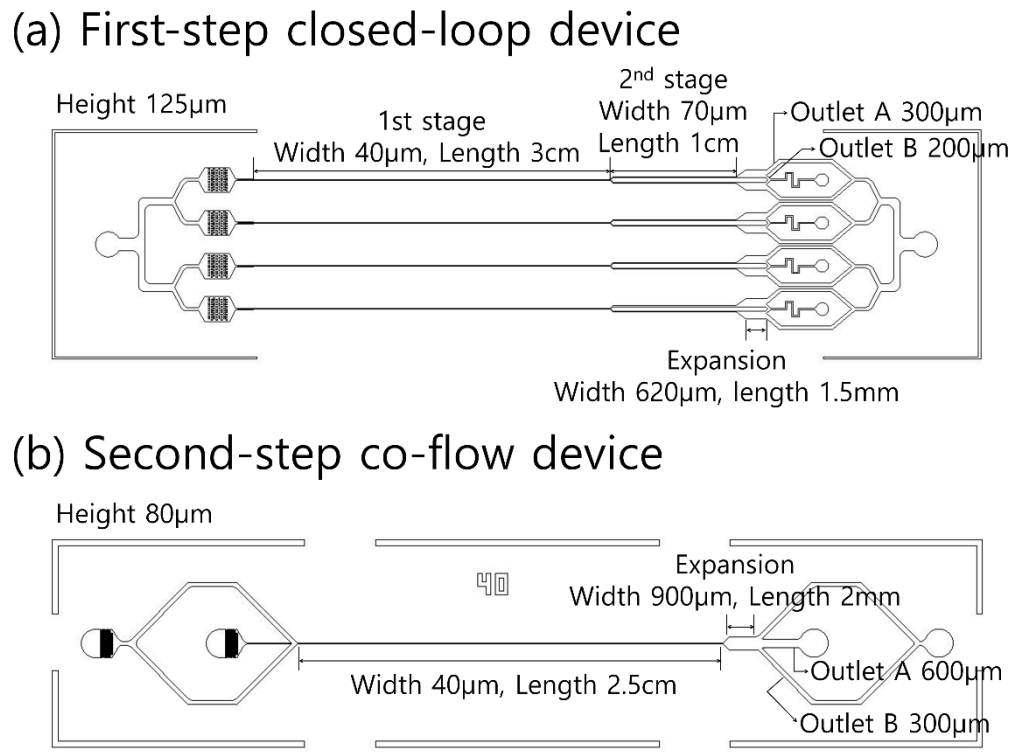

Figure S1. Computer-aided microfluidics design (CAD) of (a) the first-step closed-loop device and (b) the second-step co-flow device.

Absorption spectra of the samples

To evaluate the washing performance, the absorption spectra of the samples from the inlet mixture (positive sample), the sheath fluid (negative sample, DW), and two outlets were examined for the full range of the wavelength (200-500 nm). For visualization of the viscoelastic fluid, 100-nm fluorescent particles were used.

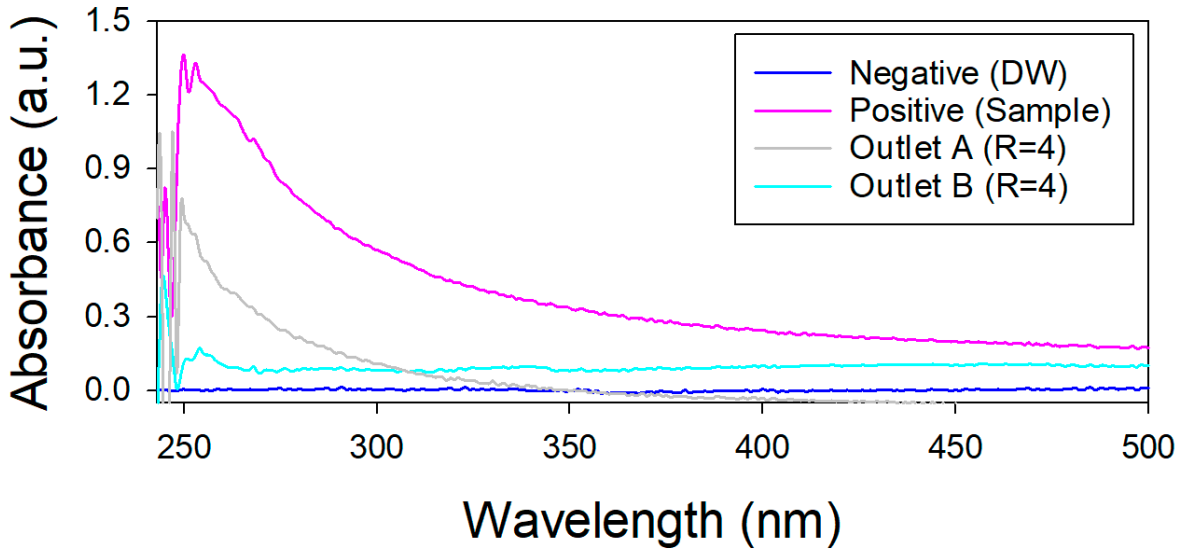

Figure S2. Absorbances measured by the UV-VIS spectrophotometer at the full range of the wavelength (200-500 nm) using the negative sample (inlet A, DW), positive sample (inlet B, sample), and collected samples at the outlets with flow rate ratio of 4.