Electronic Supplementary Material (ESI) for RSC Advances.

Supplementary Material

Microfluidic contactless conductivity cytometer for the electrical cell sensing and counting

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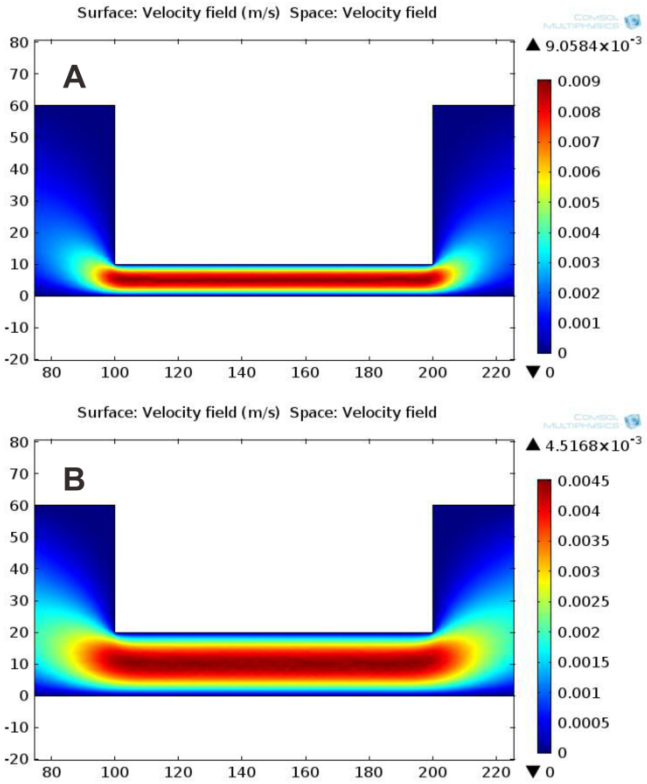

Fig. S1 Simulation results of the fluid flow using COMSOL Multiphysics in the designed microfluidic chip. Color bar is for the magnitude of the velocity. (A) The detection channel is 10 μm deep. (B) The detection channel is 20 μm deep.

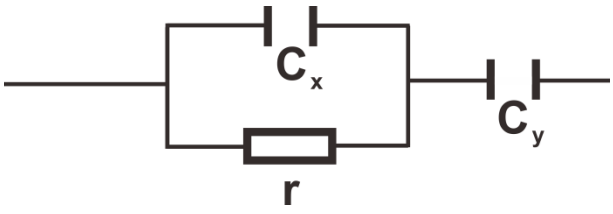

Fig. S2 The simplest equivalent electrical circuit of the C4D system. r and C_x are resistance and capacitance of the solution and cell in the channel between two electrodes, respectively; C_y is the total capacitance between electrodes and solutions.

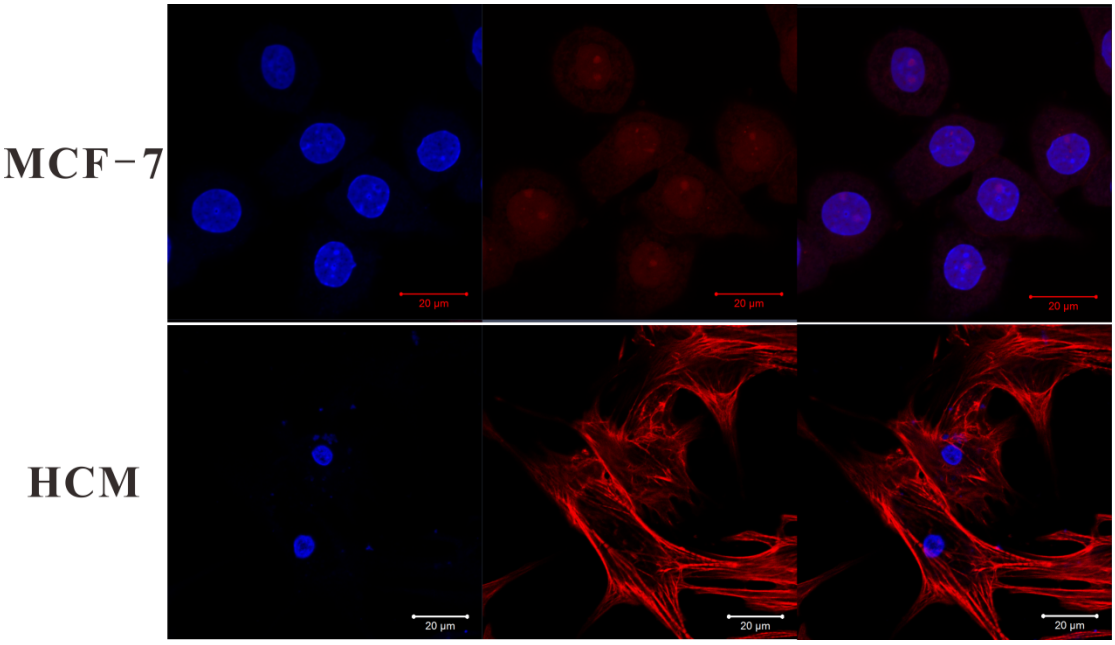

Fig. S3 The fluorescence pictures of the MCF-7 and HCM cells. MCF-7 and HCM cells were stained with rhodamine–phalloidin to measure the cell surface area.