Supporting Information

Immunomagnetic Isolation of HER2-Positive Breast Cancer Cells Using a Microfluidic Device

Delaram Parvin¹, Zahra Sadat Hashemi², Farhad Shokati³, Zahra Mohammadpour^{*, 3}, Vahid Bazargan^{*, 1}

*Corresponding authors emails: vbazargan@ut.ac.ir

mohammadpour@acecr.ac.ir

¹ School of Mechanical Engineering, College of Engineering, University of Tehran, North Amirabad, 1439957131, Tehran, Iran

² ATMP Department, Breast Cancer Research Center, Motamed Cancer Institute, ACECR, No. 146, South Gandhi Street, Vanak Square 1517964311, Tehran, Iran

³ Biomaterials and Tissue Engineering Department, Breast Cancer Research Center, Motamed Cancer Institute, No. 146, South Gandhi Street, Vanak Square, Tehran 1517964311, Iran

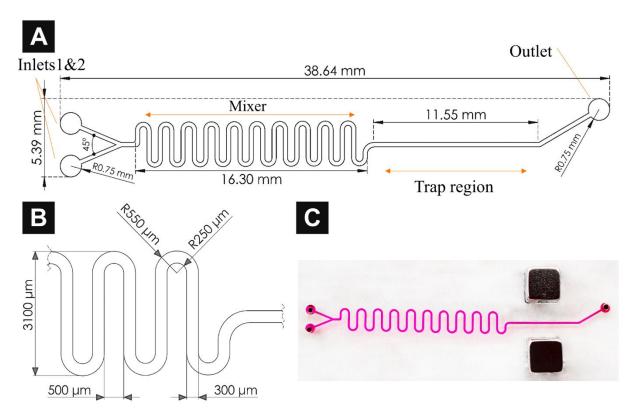


Figure S1. (A, B) A representation of the chip's configuration along with the respected dimensions, (C) an image of the fabricated microfluidic channel with the magnets.

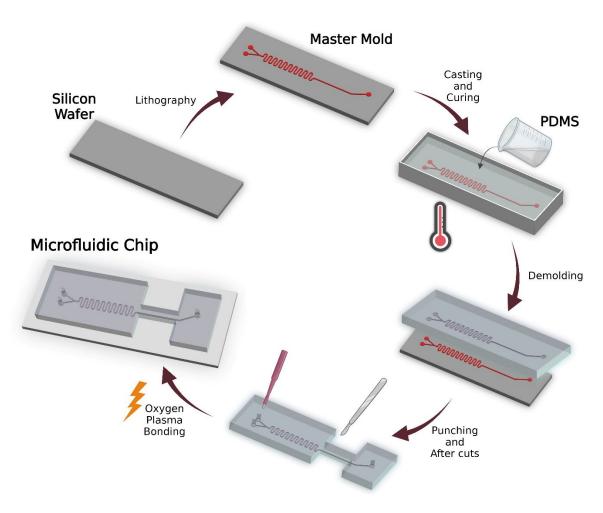


Figure S2. The fabrication process of the microfluidic chip used in the present study

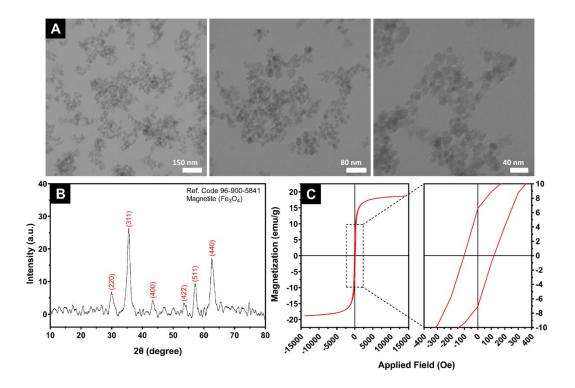


Figure S3. Characterization of bare MNPs by (A) TEM analysis with different magnifications, (B) XRD, and (C) VSM analysis

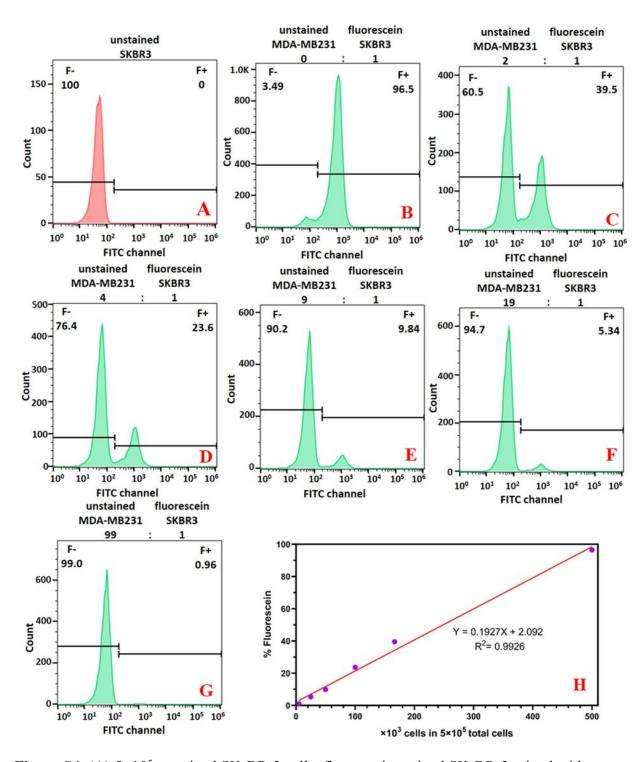


Figure S4. (A) 5×10^5 unstained SK-BR-3 cells; fluorescein-stained SK-BR-3 mixed with unstained MDA-MB-231 in different ratios of (B) 1:0, (C) 1:2, (D) 1:4, (E) 1:9, (F) 1:19, (G) 1:99; (H) the standard curve