

# In-Situ Electroporation on PERFECT Filter for High-efficiency and High-viability Tumor Cell Labeling

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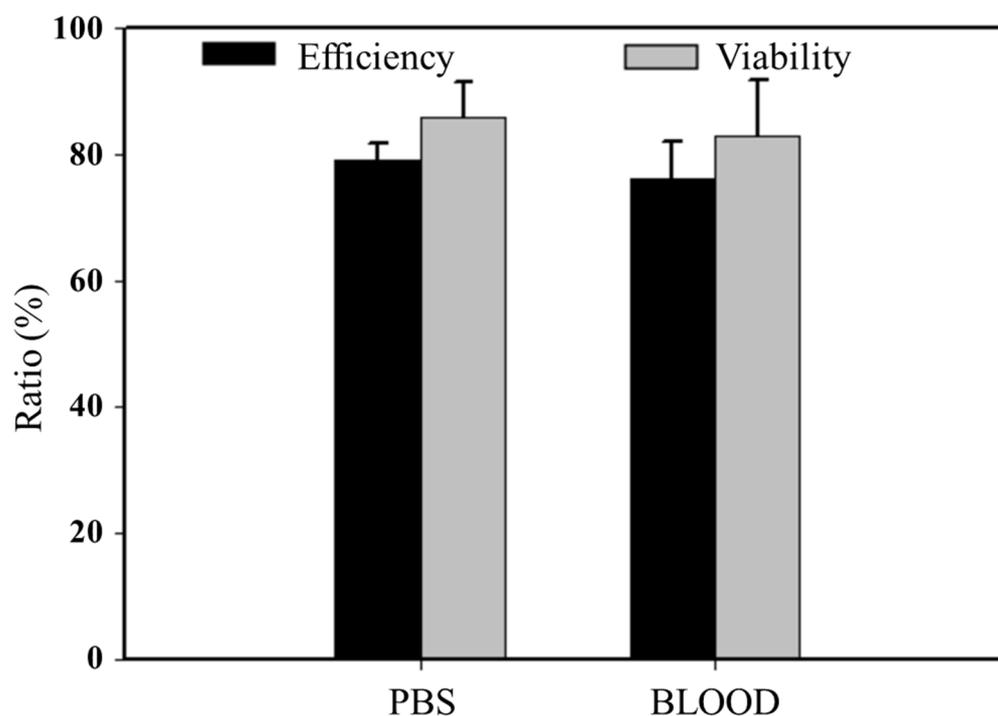
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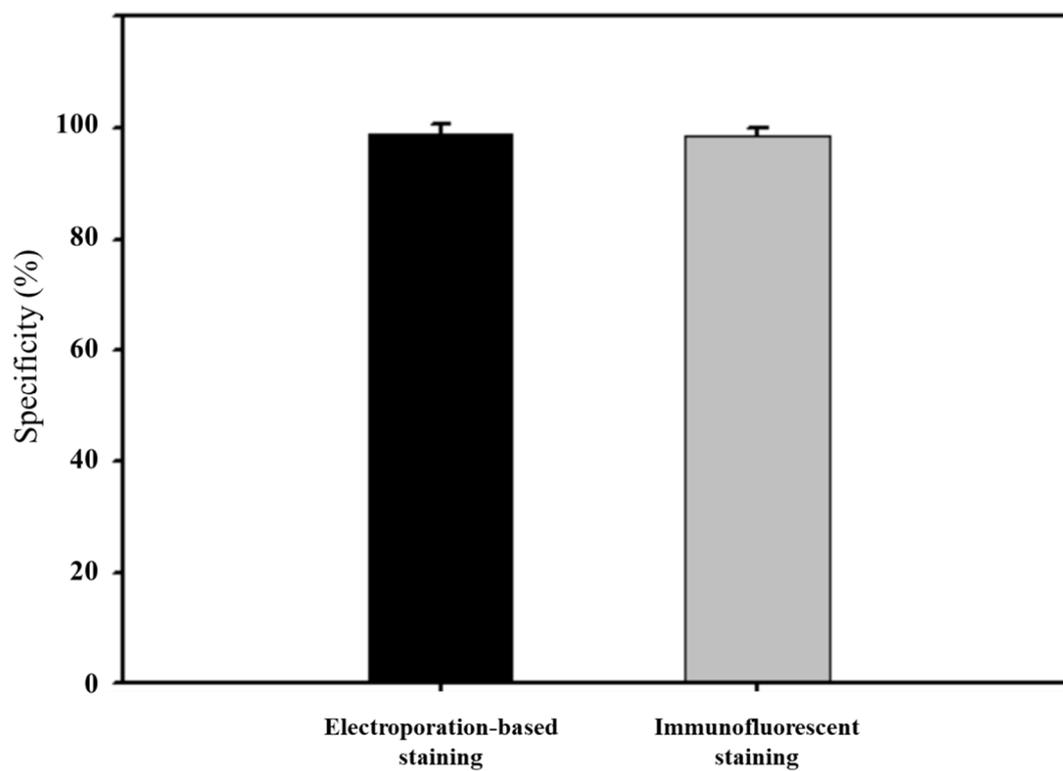
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Electronic Supplementary Information (ESI) available: Figure S1, Figure S2 and

Table S1. See DOI:



**Figure S1.** The separation efficiency and cell viability of 10000 1601 cells in 1 mL PBS or whole blood.



**Figure S2.** A comparison of transfection specificity for the proposed system and the traditional IF staining.

Table S1. The optimum parameters of three types of molecules

Type of molecules	Electric field strengths	Pulse duration	Pulses number	Pulse interval
Small molecule dyes	1.5 kV/cm	100 $\mu$ s	3	1000 ms
Plasmid	1.5 kV/cm	100 $\mu$ s	3	1000 ms
Functional proteins	1.5 kV/cm	3000 $\mu$ s	3	1000 ms