Supporting Information

Bladder cancer cell capture: Elucidating the effect of sample storage conditions on capturing bladder cancer cells via surface immobilized EpCAM antibody.

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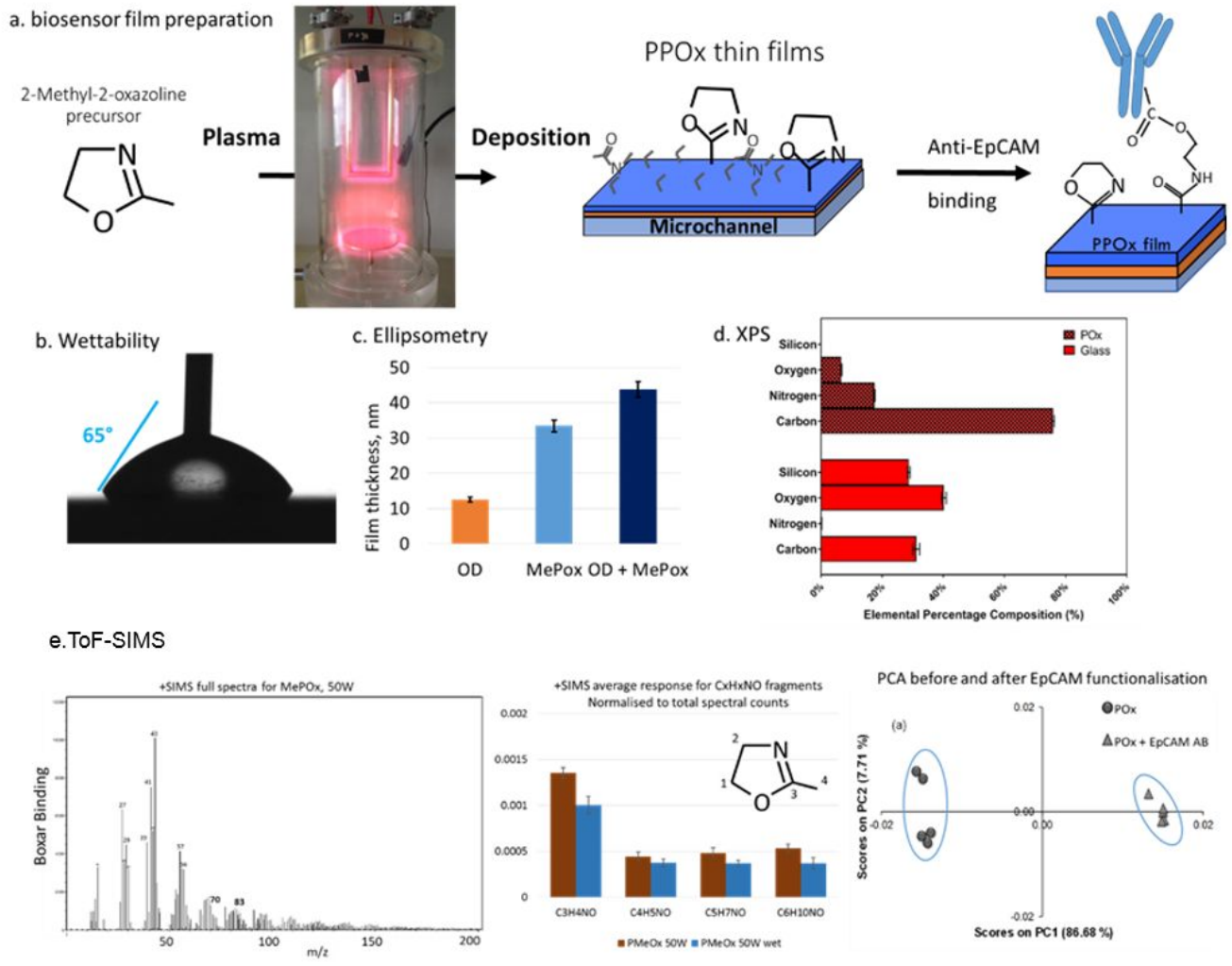

Figure S1. Preparation and characterization performed on the POx film. The biosensor preparation pathway (a) uses 2-methyl-2-oxazoline as the precursor which is deposited via plasma polymerization. Deposition through plasma polymerization allows for the retention of the rings that then react with the carboxyl group of the antibody. The resulting wettability is shown to have a partially

hydrophilic contact angle of 65O (b). The thickness of the film is measured with ellipsometry and the coating properties show that the thickness is ~40nm (c). Examination of the top 10 nm of the coating surface via XPS show an increase in the nitrogen content when compared to glass as well as the disappearance of silicon from the surface scan to support the film coverage(d). Further ToF-SIMS scans are provided showing the fragmentation and PCA to anti-EpCAM functionalization(e).

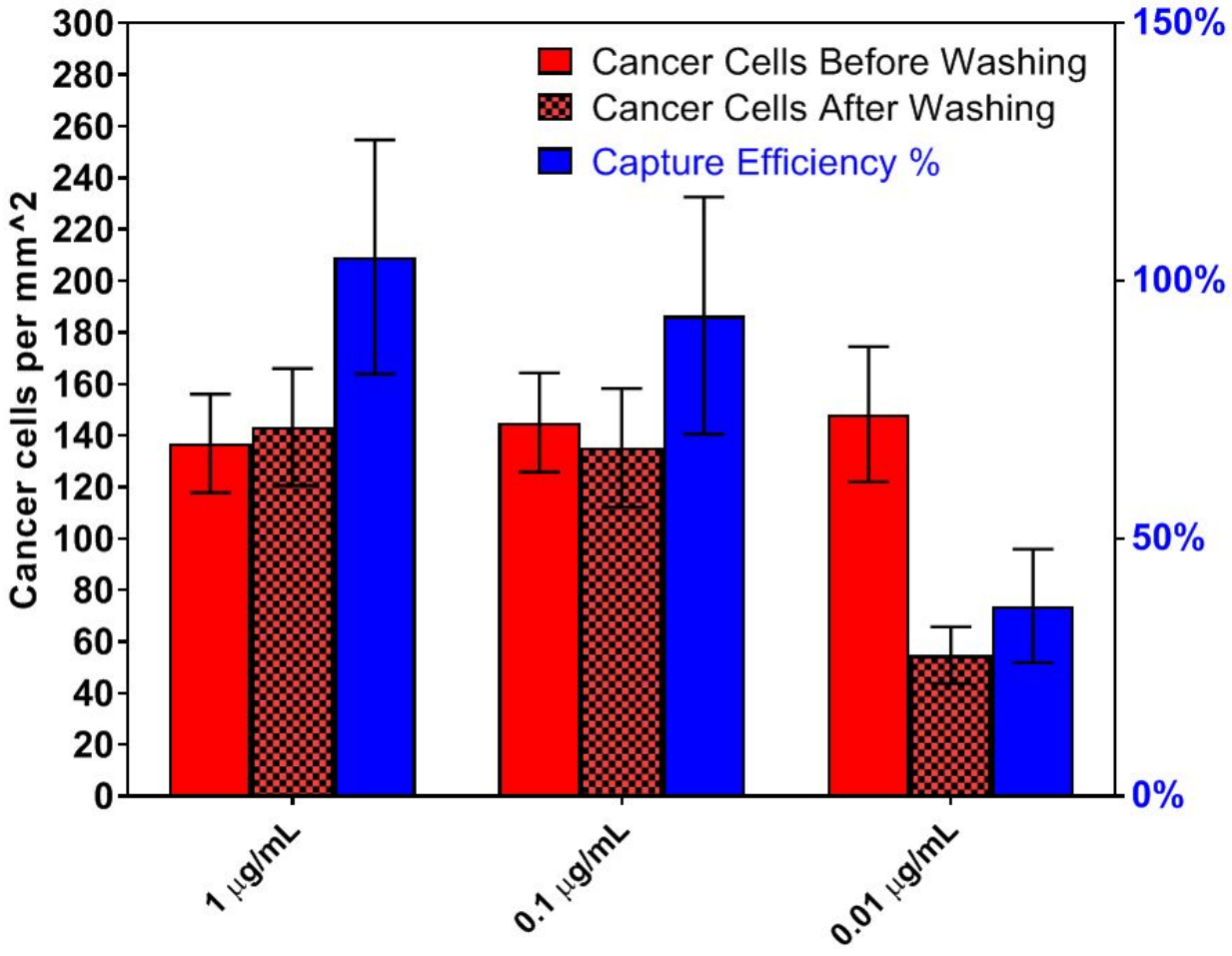

Figure S2. Cancer cell capture with different antibody serial dilutions of 1ug/mL 0.1ug/mL and 0.01ug/mL.

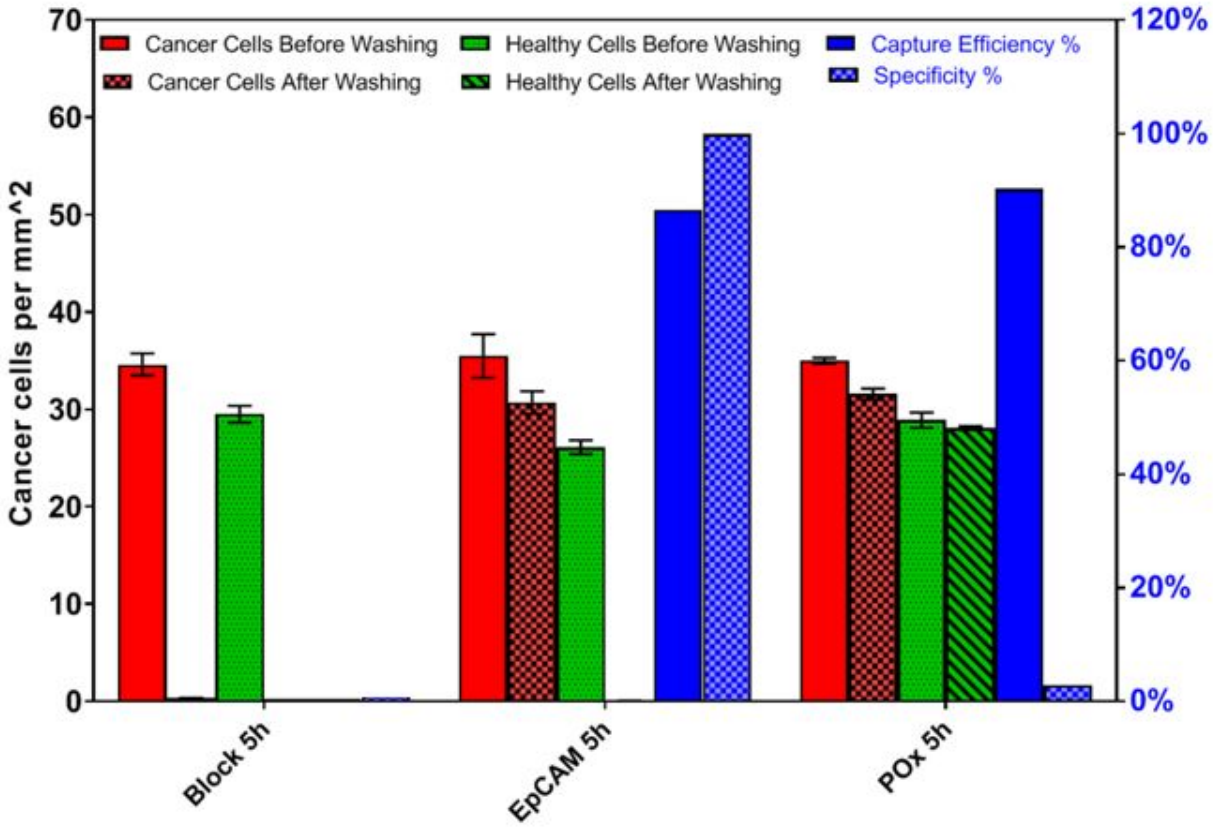

Figure S3. Channel capture efficiency after incubating the channel at room temperature for 5h prior to use with a fresh medium.

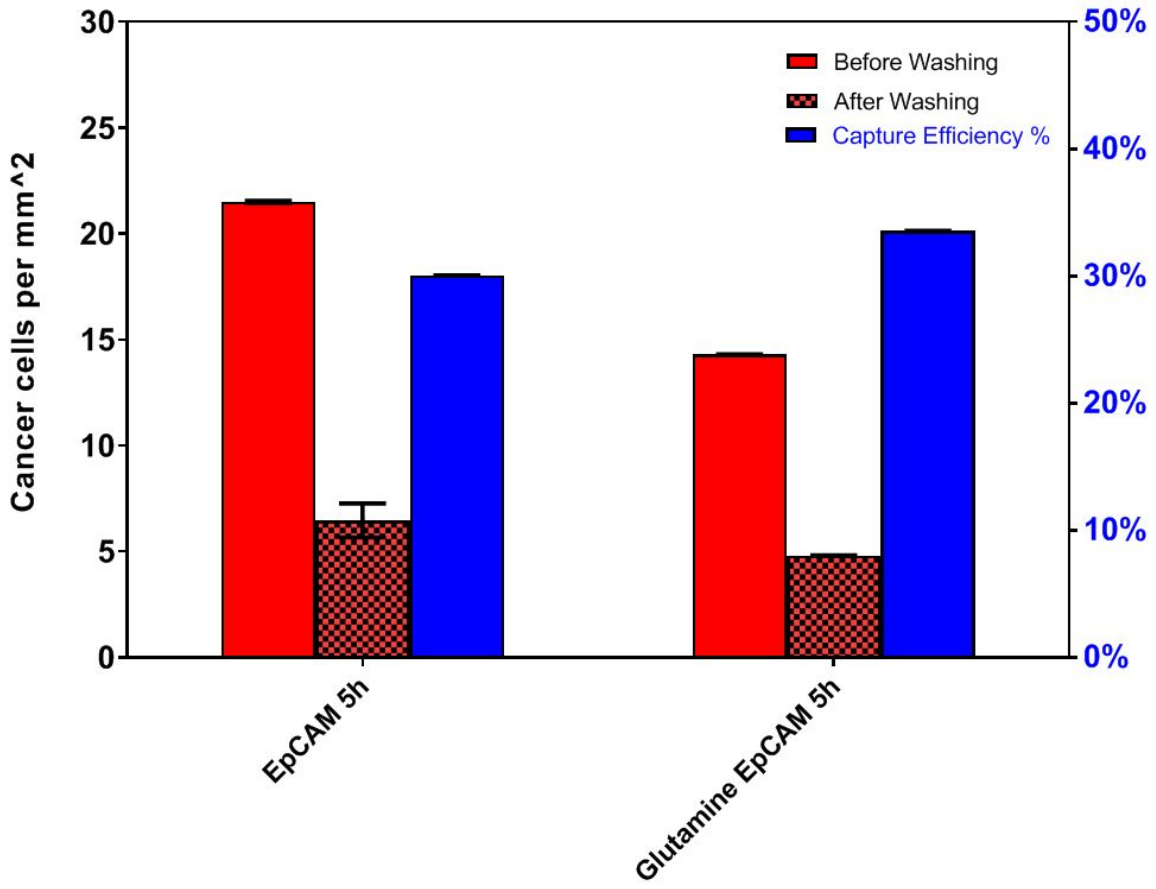

Figure S4. Capture efficiency after 5 hours with and without the addition of Glutamine.