Supporting Information

Array-based analysis of secreted glycoproteins for rapid selection of a single cell producing a glycoprotein with desired glycosylation

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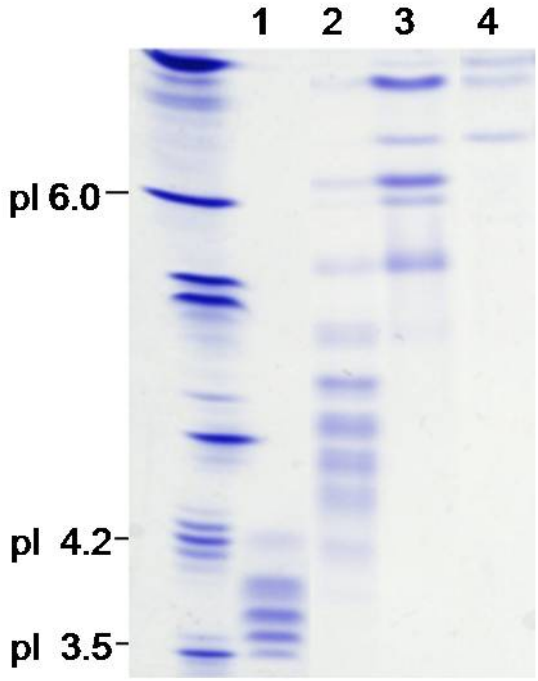


Figure S-1. IEF-gel (pH 3-7) image of rhEPO isoforms produced by treatment of standard rhEPO with sialidase for different times (0, 2, 5, or 10 min). Lane 1, isofrom-1; Lane 2, isoform-2; Lane 3, isoform-3; Lane 4, isoform-4.

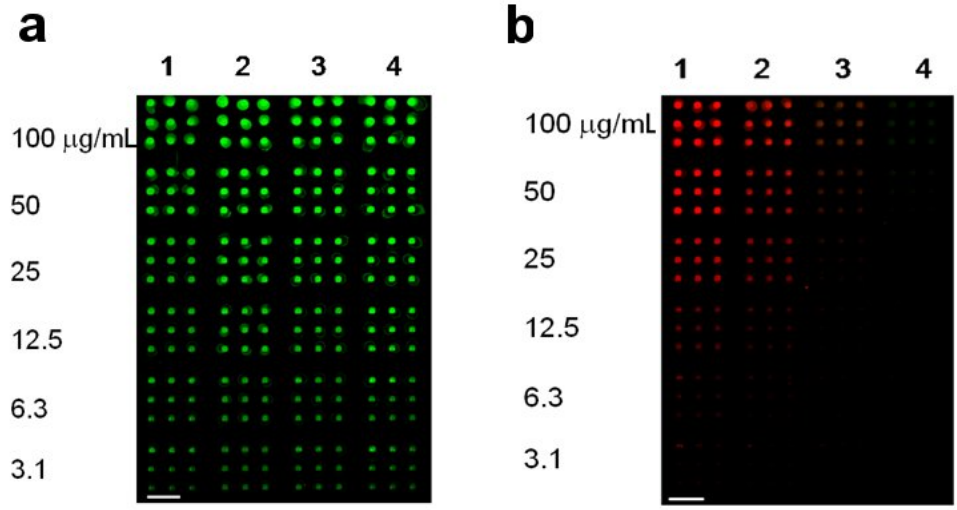
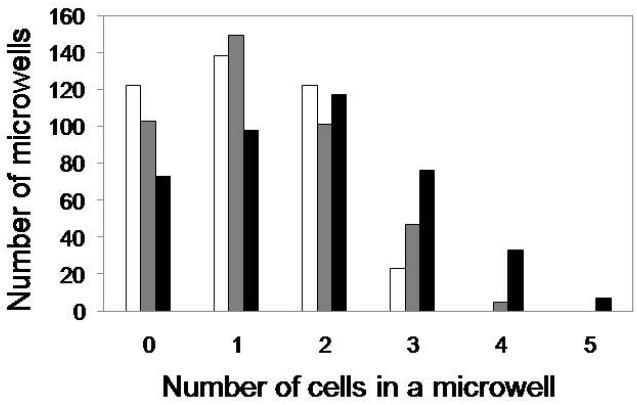


Figure S-2. Fluorescence images of the spots probed by Cy3-α-EPO and Cy5-MAA. The rhEPO isoforms were serially diluted and spotted on the glass slide in nine spots with a 3 × 3 format using a robotic microarrayer, followed by probing with either Cy3-α-EPO or Cy5-MAA. Lane 1, isoform-1; Lane 2, isofrom-2; Lane 3, isoform-3; Lane 4, isoform-4. The protein concentrations in spotting solution are marked on the left. Scale bars, 300 μm. (a) Fluorescence image of the spots probed by Cy3-α-EPO. (b) Fluorescence image of the spots probed by Cy5-MAA.

a



b

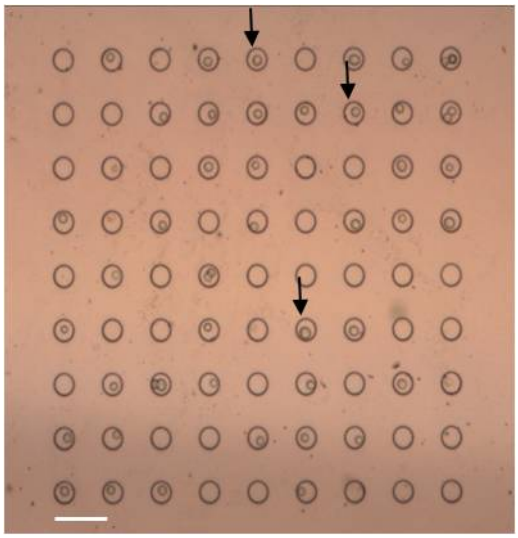


Figure S-3. (a) Distribution in the number of microwells with respect to the number of confined cell in a microwell with different size in diameter. A microwell array with different size in diameter was used for each experiment. White bar, 25 μm ; gray bar, 30 μm ; black bar, 40 μm. (b) Phase-contrast image of the microwells with size of 30 μm in diameter. Cell-containing microwells are typically marked with the arrows. Scale bar, 100 μm.

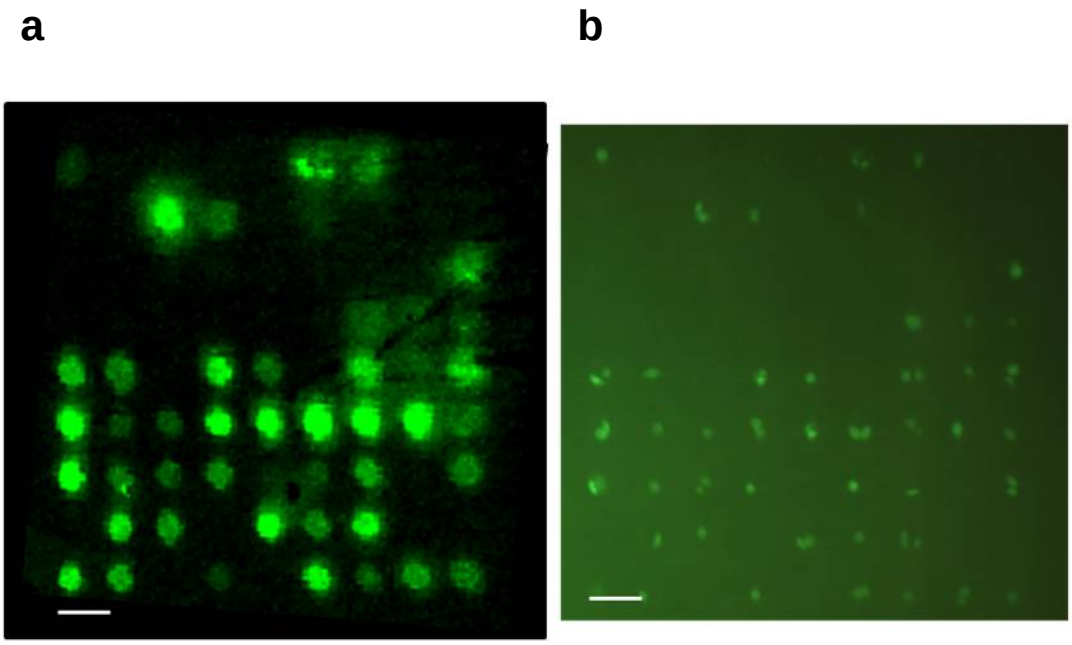


Figure S-4. Viability of cells in microwells. (**a**) Fluorescence image of the spots emitting the Cy3-α-EPO signals in a glass slide. (**b**) Image of calcein AM dye signals from the microwells containing live cells. Ubiquitous intracellular esterase of live cells converts non-fluorescent calcein AM dye to fluorescent calcein. Scale bars, 100 μm.