SUPPORTING INFORMATION

Temperature switch cytometry – releasing antibody on demand from inkjet-printed gelatin for on-chip immunostaining

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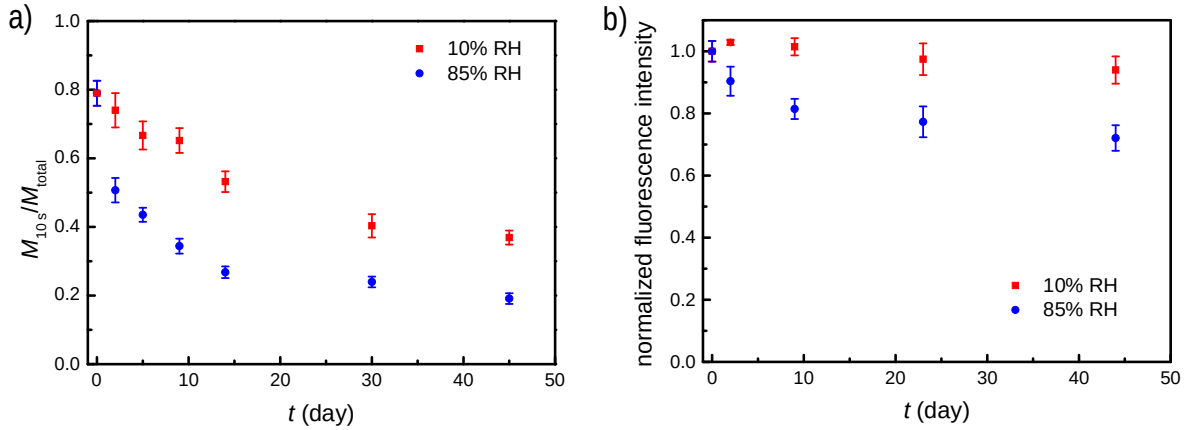

Figure S1. a) Fractional release of APC-αCD3 during the inflow period from layers matured at 4°C under 85% relative humidity (RH) (blue circles) and 10% RH (red squares) for varying storage periods. b) Normalized fluorescence intensity (APC-αCD3 readout) of dry layers matured at 4°C under 85% RH (blue circles) and 10% RH (red squares) for varying storage periods, respectively. Data points represent mean ± standard deviation (n=3).

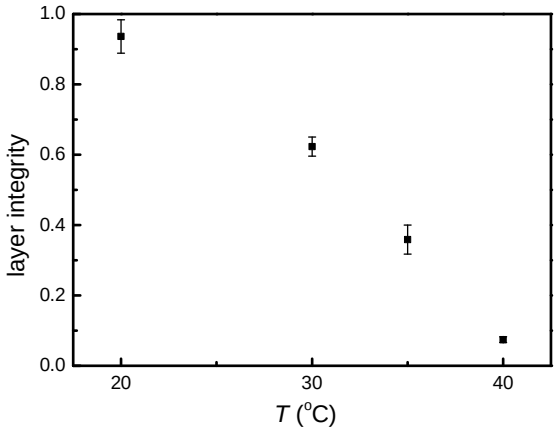

Figure S2. The thickness ratio of layers, which are subject to initial maturation at 4°C under 85% RH for 2 days and follow-up maturation at 4°C under 10% RH for 6 weeks, before and after incubation in PBS at different temperatures for 3 min. Data points represent mean ± standard deviation (n=3).

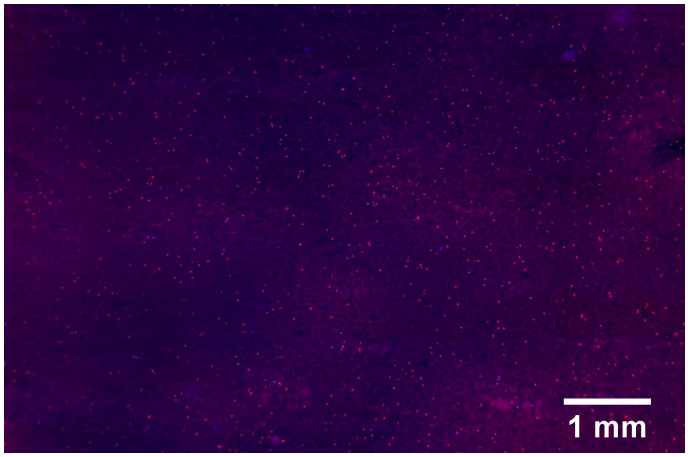

Figure S3. A complete overlay image (including both APC/red and PerCP/blue excitation) of matured gelatin/antibody layers (subject to 2-day initial and 6-week follow-up maturation) after 40 min incubation with blood. Randomly distributed stained cells are shown. Double positive cells are $CD4^+$ T-lymphocytes, seen as purple dots.

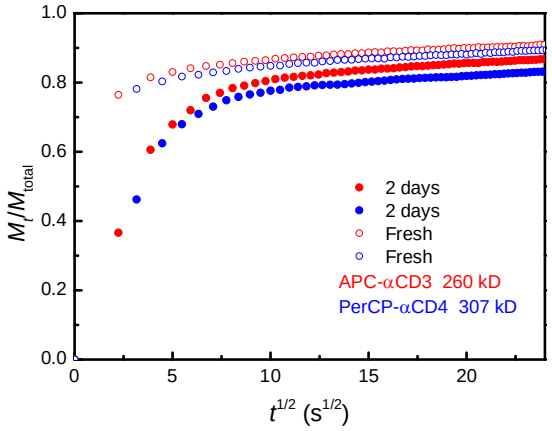

Figure S4. Kinetics of APC-αCD3 (red) and PerCP-αCD4 (blue) release from freshly printed layers (open circles) and from layers subject to 2-day maturation at 4°C under 85% RH (solid circles). The differences between the release kinetics of the two antibodies are negligible.