



Figure S1. The second derivative of relative absorbance showed peaks at 640 nm at every volume tested. In every test, the antibody significantly contributed to the signal over the PBS ( $p < 0.0001$ ). Data are presented as mean  $\pm$  s.d. and compared to the scaffold with Two-way ANOVA with multiple T-test, \*\*\*\* $p \leq 0.0001$ . N=4 drops per volume type. Spectra were displayed by using the 2<sup>nd</sup> derivative to show how the peak was detected over the entire range (500-995nm).