SUPPORTING INFORMATION AVAILABLE FOR *Analytical Chemistry,* "Engineering Nanostructured Porous SiO_2 Surfaces for Bacteria Detection via "Direct-Cell-Capture", Naama Massad-Ivanir, Giorgi Shtenberg, Adi Tzur, Maksym A. Krepker and Ester Segal.

Table S1: Thickness and porosity of the thermally oxidized PSi layer

Etching Conditions		*HRSEM*[a]		*Gravimetry*	*Spectral Measurement*[b]	
Etching time (sec)	**Current density (mA/cm^2)**	**Pore diameter (nm)**	**Thickness (nm)**	**Total porosity (%)**	**Open porosity (%)**	**Thickness (nm)**
30	385	80±10	7880±60	80±1	76±2	6390±80

Thickness and porosity determined by spectral reflectivity measurements, gravimetry and SEM. Highly-doped p-type Si wafers (0.0008 Ω-cm resistivity, ‹100› oriented, B-doped) are anodized at a constant current density of 385 mA/cm^2 for 30 s. The resulting samples are thermally oxidized in air at 800°C. For the spectral measurements, the calculation of the porosity and thickness is based on the application of the Bruggeman approximation to the values of the optical thickness obtained from the fast Fourier transform (FFT) of the reflectivity spectra of samples immersed in various liquids (ethanol, hexane, acetone and pre-gel solution).

[a] High-resolution Scanning Electron Microscopy.

[b] Spectroscopic Liquid Infiltration Method (SLIM).

Verification of antigenic specificity of the conjugated antibodies

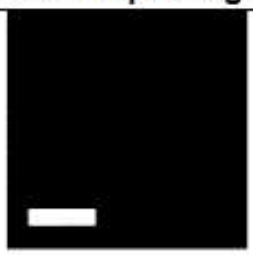
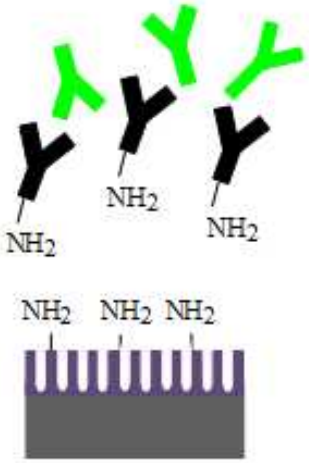
Num	Composition	Schematic representation	Fluorescent microscope image
a	Control (no silanization, FITC-Anti-M IgG)		
b	Control (no SC, FITC-Anti-M IgG)		

Figure S1: Results of fluorescence labeling experiments to confirm antigenic specificity of the immobilized IgG; the samples were observed under a fluorescent microscope, at a constant exposure time. Scale bar is 100 µm.

Fluorescence labeling experiments with FITC-anti-mouse IgG. (a) A control experiment, without silanization, $PSiO_2$ + SC + IgG; (b) A control experiment, no cross-linker (SC), $PSiO_2$ + APTES + IgG.

Note: These schematics are for illustration purposes only as conjugation of the IgG also occurs inside the pores.