

Materials List for:

Electrowetting-based Digital Microfluidics Platform for Automated Enzyme-linked Immunosorbent Assay

Nikolay Dimov¹, Martin B. McDonnell¹, Ian Munro¹, Daniel K. McCluskey¹, Ian D. Johnston¹, Christabel K. L. Tan¹, Loïc Coudron¹

¹School of Engineering and Computer Science, University of Hertfordshire

Correspondence to: Loïc Coudron at l.coudron@herts.ac.uk

URL: <https://www.jove.com/video/60489>

DOI: [doi:10.3791/60489](https://doi.org/10.3791/60489)

Materials

Name	Company	Catalog Number	Comments
(4-(2-Hydroxyethyl)piperazine-1-ethanesulfonic acid, HEPES	Sigma-Aldrich	H9897	
Anti-Human Serum Albumin [15C7]	Abcam	ab10241	
Anti-Human Serum Albumin [1A9] (HRP)	Abcam	ab24438	
B. atrophaeus (BG) spores	Dstl, UK	N/a	
Biotinylated Rb anti-BG polyclonal	Dstl, UK	N/a	
Biotinylated Rb anti-E. coli MRE 162 polyclonal	Dstl, UK	N/a	
Biotinylated Rb anti-MS2 polyclonal	Dstl, UK	N/a	
Blocker Casein	Thermo Scientific	TFS 37582	
CNC Dicing/Cutting Saw	MTI Corp, USA	SYJ-400	
Cytop	AGC, Japan	CTL-809M	Amorphous fluoropolymers. This is a two component coating.
E. coli MRE 162	Dstl, UK	N/a	
Goat anti-MS2 polyclonal	Dstl, UK	N/a	
Hamamatsu photodiode	Hamamatsu, Japan	S9270	
Hydrochloric acid (32%)	Sigma-Aldrich	W530574	
Mask manufacturing service	Compugraphics, Scotland, UK	N/a	
MS2 virus	Dstl, UK	N/a	
Parylene-C, DPX-C	Specialty Coating System, USA	CAS No.: 28804-46-8	
Pierce Direct Magnetic IP/Co-IP Kit	Thermo Scientific	88828	Contains all buffers and reagents required for enzyme immobilisation. Store at 4 °C.
Rb anti-BG polyclonal	Dstl, UK	N/a	
Rb anti-E. coli MRE 162 polyclonal	Dstl, UK	N/a	
Recombinant Human Serum Albumin protein, HAS	Abcam	ab201876	
SCS Parylene Deposition System	Specialty Coating System, USA	2010	
Silicon wafer, 4", p-type, <100>, 1–10 Ωcm	Pi Kem Ltd	N/a	
Spin Coater	SÜSS MicroTec AG, Germany		
SuperSignal ELISA Femto Maximum Sensitivity Substrate	Thermo Scientific	37075	It contains 50 mL of Luminol/Enhancer and Stable Peroxide solutions. Store at 4 °C.
Tween 80	Thermo Scientific	28328	The manufacturer is Surfact-Amps Detergent Solution.