

Materials List for

Microfluidic Approach to Resolve Simultaneous and Sequential Cytokine Secretion of Individual Polyfunctional Cells

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Citation

Linder, A., Portmann, K., Schlottheuber, L.J., Streuli, A., Glänzer, W.S., Eyer, K., Lüchtfeld, I. Microfluidic Approach to Resolve Simultaneous and Sequential Cytokine Secretion of Individual Polyfunctional Cells. *J. Vis. Exp.* (205), e66492, doi:10.3791/66492 (2024).

Date Published

March 8, 2024

DOI

10.3791/66492

URL

jove.com/video/66492

Materials

Name	Company	Catalog Number	Comments
008-FluoroSurfactant	RAN Biotechnologies	008-FluoroSurfactant-10G	
2-Stream flow-focusing droplet maker, 30 µm nozzle, PFOS hydrophobic surface treatment	Wunderli chips		
Alexa Fluor 647 NHS Ester	ThermoFisher	A20006	https://www.thermofisher.com/ch/en/home/references/protocols/cell-and-tissue-analysis/labeling-chemistry-protocols/fluorescent-amine-reactive-alexa-fluor-dye-labeling-of-igm-antibodies.html
Anti-Human IL-1β (Monoclonal Mouse), AF647 labelled in-house	PeptoTech	500-M01B	
ARcare92524 double-sided adhesive tape	Adhesives Research	ARcare92524	
Bio-Adembeads Streptavidin plus 300nm	Ademtech	Cat#03233	
Biotinylated Goat Anti-Human IL-1β	PeptoTech	500-P21BGBT	
Bovine Serum Albumin (BSA)	Sigma-Aldrich	A3059	
Cell Scraper	TPP	99002	
CellTrace Violet Cell Proliferation Kit	Invitrogen	C34557	Cell staining solution
Chromafil Xtra PTFE-45/25 syringe filters	Macherey-Nagel	729205	
Costar 6-well Clear Flat Bottom Ultra-Low Attachment	Corning	3471	
Countess Cell Counting Chamber Slides	Invitrogen	C10283	

D-Biotin	Fluorochem	M02926	
DPBS, no calcium, no magnesium	Gibco	14196-094	
epT.I.P.S. Standard 2-200 µl	Eppendorf	30000889	
Ethylenediaminetetraacetic acid disodium salt solution	Sigma-Aldrich	3690	
EZ-LINK-NHS-PEG4-Biotin	ThermoFisher	A39259	https://www.thermofisher.com/order/catalog/product/20217
FcR Blocking Reagent, human	Miltenyi Biotec	130-059-901	
Fetal Bovine Serum	Gibco	10270-106	
Handy dish soap	Migros	5.01002E+11	
HEPES (1 M)	Gibco	15630-080	
HFE-7500 Oil 3M TM Novec	Fluorochem	B40045191	
IDEX F-120 Fingertight One-Piece Fitting, Standard Knurl, Natural PEEK, 1/16" OD Tubing, 10-32 Coned	Cole-Parmer	GZ-02014-15	
IL-6 Monoclonal Antibody (MQ2-13A5 - Rat), FITC	ThermoFisher	11-7069-81	
IL-6 Monoclonal Antibody (MQ2-39C3), Biotin	ThermoFisher	13-7068-85	
KnockOut Serum Replacement	ThermoFisher	10828-010	
Loctite AA 3491 curable UV glue	Henkel AG & Co	3491	
Microscope slides (76x26x1mm, clear white)	Menzel Gläser		
Mineral oil light	Sigma-Aldrich	330779	
NanoPort Assembly Headless, 10-32 Coned, for 1/16" OD	Idex	N-333	
Neodymium block magnet	K&J Magnetics	BZX082	
Omnifix-F Spritze, 1 ml, LS	Braun	9161406V	
Penicillin-Streptomycin (10,000 U/ mL)	Gibco	15140-122	
Phosphate buffered saline	Sigma-Aldrich	P4417	
Pluronic F-127, 0.2 µm filtered (10% Solution in Water)	ThermoFisher	P6866	
Precision wipes	Kimtech Science	5511	
PTFE microtubing 0.30 × 0.76 mm	FisherScientific	1191-9445	
PTFE microtubing 0.56 × 1.07 mm	FisherScientific	1192-9445	
Recombinant Human IL-1β	Peprtech	Cat#200-01B	
Recombinant Human IL-6	Peprtech	Cat#200-06	
Recombinant human serum albumine (HSA)	Sigma-Aldrich	A9731	
Recombinant Human TNF-α	Peprtech	Cat#300-01A	
Reusable biopsy punch diameter 0.75 mm and 6 mm	Stiefel	504529 and 504532	
RPMI 1640 Medium, no phenol red	Gibco	11835-030	
Standard LPS, E. coli K12	InvivoGen	tlrl-eklps	
Sterican needles 23 G for 0.56 mm diameter microtubing	FisherScientific	15351547	
Sterican needles 27 G for 0.30mm diameter microtubing	FisherScientific	15341557	
TNF alpha Monoclonal Antibody (MAb11), PE	ThermoFisher	12-7349-81	

TNF-alpha Monoclonal Antibody (MAb1), biotinylated in-house	ThermoFisher	14-7348-85	
Trypan Blue Stain (0.4%) for use with the Countess Automated Cell Counter	Invitrogen	T10282	
Vacuum Filtration "rapid"-Filtermax	TPP	99500	
Devices			
Cameo 4 automatic cutting machine	Silhouette		
Cetoni Base 120 + 3x NEMESYS Low Pressure Syringe Pumps	Cetoni	NEM-B101-03 A	
Countess II Automated Cell Counter	ThermoFisher		
Inverted Epi-fluorescence microscope Ti2	Nikon	ECLIPSE Ti2-E, Ti2-E/B*1	
OKO Lab Cage Incubator, dark panels	OKO Lab		
ORCA-Fusion Digital CMOS camera	Hammatsu	C14440	
SOLA Light Engine	Lumencor	sola 80-10247	