

Materials List for:

Counting Proteins in Single Cells with Addressable Droplet Microarrays

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Materials

Name	Company	Catalog Number	Comments
Cell culture			
Phosphate-Buffered Saline (PBS)	Life Technologies	10010015	
DMEM high glucose	Sigma	D6429	
Foetal Bovine Serum (FBS)	Biochrom	S0115	
cell culture flasks	Corning	SIAL0639	
Trypsin/EDTA	Biochrom	L2153	
Name	Company	Catalog Number	Comments
Microarray			
Microcontact Arrayer	DigiLab, UK	OmniGrid Micro	
Microcontact pin	ArrayIt, USA	946MP2	
Coverslips (Nexterion)	Schott, Europe	1098523	Size (mm): 65.0 x 25.0; Thickness (mm) 0.17
p53 capture antibody	Enzo	ADI-960-070	
p53 detection antibody, Alexa Fluor 488 labelled	Santa Cruz	sc-126	stock concentration 200µg/mL
Saline-sodium citrate buffer	Gibco	15557-044	
Betaine	Sigma	61962	
Sodium dodecyl sulphate	Sigma	L3771	
384 well plate (low volume)	Sigma	CLS4511	
Nitrogen gas cylinder	BOC	Industrial grade, oxygen-free	
Name	Company	Catalog Number	Comments
Droplets			
Micromanipulator	Eppendorf	Patchman NP2	
Manual Microinjector	Eppendorf	CellTram Vario	
Micropipette	Origio, Denmark	MBB-FP-L-0	
Syringe pumps	KD Scientific	KDS-210	
100 µL syringe	Hamilton	81020	Gas tight, PTFE Luer lock
1 mL syringe	Hamilton	81327	Gas tight, PTFE Luer lock
Silicone isolator	Grace Bio-Labs	JTR24R-A-0.5	6x4 well silicone isolator with adhesive
Laser cutter	VersaLASE	VLS2.30 CO2 Laser 3W	for laser cutting of custom isolators
1mm thick acrylic sheet	Weatherall-UK	Clarex Precision Sheet 001	for laser cutting of custom isolators
Adhesive sheet	3M		used to adhere custom isolators to microarrayed coverslips
Super glue	Loctite	LOCPFG3T	

150 µm ID/360 µm OD fused silica tubing	IDEX	FS-115	
1.0 mm ID/1/16" OD PFA tubing	IDEX	1503	
0.014" ID/0.062" OD PTFE tubing	Kinesis	008T16-100	
1.0 mm ID/2.0 mm OD FEP tubing	IDEX	1673	
Bovine Serum Albumen (BSA)	Fisher Scientific	BP9700100	
Mineral oil	Sigma	M5904	
Ultra-pure water	Millipore, Germany	MilliQ	
Name	Company	Catalog Number	Comments
Microscopy & Optics			
TIRF microscope with encoded XY stage	Nikon, Japan	Nikon Ti-E	
EM-CCD	Andor Technologies, Ireland	IXON DU-897E	
Laser excitation source	Vortran, USA	Stradus 488-50	
Optical lysis laser source	Continuum, USA	Surelite SLI-10	
Microscope filter cube for TIRF	Chroma, USA	z488bp	
Microscope filter cube for Optical Lysis	Laser 2000, UK	LPD01-532R-25	
Name	Company	Catalog Number	Comments
Software			
Fiji	Open Source		Image analysis software
Matlab	Mathworks	version 7.14 or higher	Image analysis software