

Materials List for:

Stress-induced Antibiotic Susceptibility Testing on a Chip

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Materials

Name	Company	Catalog Number	Comments
SYTOX Green	Invitrogen Corporation	S7020	Dead cell fluorescence stain
Bovine Serum Albumin (BSA)	Sigma Aldrich, Inc	A9418-5G	Used for lysostaphin storage
Sodium Acetate	Sigma Aldrich, Inc	S8750-500G	Used for lysostaphin storage
Lysostaphin	Cell Sciences	CRL309A	Arrives as 1 mg solid. For storage: Dissolve in 20 mM sodium acetate. Mix with BSA solution to final concentration of 1% BSA and 100 µg/ml lysostaphin for storage
Oxacillin salt	Sigma Aldrich, Inc	28221-1G	Antibiotic
Mueller Hinton Broth	Fisher Scientific	DF0757-17-6	
Sodium chloride	Sigma Aldrich	S3014-500G	2% added to Mueller-Hilton broth prior to autoclaving
1 ml, Luer-lock syringe	BD (Beckton, Dickinson and Comp.)	14-823-2F	
2 oz, Luer-lock syringe	BD (Beckton, Dickinson and Comp.)	309653 - 60 mL	Overfill to ~65 ml
Microscope			
Inverted Fluorescence Microscope Olympus IX-70	Cambridge Scientific	9349	
60X, Fluorescence/Phase contrast objective	Olympus Corp.	LCPlan F1 60x/0.70 Ph2	
Retiga 12-bit monochrome CCD camera	QImaging	RET-4000R-F-M-12-C	
Microscope automation			
Shutters phase contrast/fluorescence	PRIOR Scientific	H204/H202	
X/Y Stage	PRIOR Scientific	H107AENN	
Focus motor	PRIOR Scientific	H122	
Joystick for XYZ control	PRIOR Scientific	CS152EF	
Proscan Controller	PRIOR Scientific	H3-XY2	
Image Acquisition Software	Fraunhofer CMI		
Flow Cell Assembly and PDMS			
Flow Cell	BU Scientific Instruments Facility/ Fraunhofer CMI	3333-1044	Engineering drawings were produced by Fraunhofer CMI
Glass window	Fraunhofer CMI	3333-1054	Glass window was cut to the proper size at Fraunhofer CMI

BOROFLOAT Window 50 mm x 50 mm	Edmund Optics Inc.	NT48-543	
Sealing plate	BU Scientific Instruments Facility	3333-1045	
Epoxide glass slide	Arrayit Corporation	SuperEpoxy 2	
PDMS master	Fraunhofer CMI	3333-1053	Master machined in aluminum or brass with UPM-0005 (ultraprecision fly-cutting machine)
PDMS slide design	Fraunhofer CMI	3333-1053	
Tubing			
Nut, Super flangeless Tynytight, headless, 1/16 in, PEEK, green	IDEX Health Science	M-644-03	Flow cell inputs/outputs are tapped for this ferrule
Ferrule, Tynytight, 1/16 in, 6-40, .030 in TH, PEEK w/ SS lock ring, black	IDEX Health Science	M-657	
Nut, Super flangeless Tynytight, headless, 1/16-1/32 in, 1/4-28, PEEK, natural	IDEX Health Science	P-255	
Ferrule, Super Falngeless, 1/16 in, Tefzel (ETFE), yellow	IDEX Health Science	P-259	Fits Luer-lock adapter
Tubing, Teflon FEP, .030 in x 1/16 in x 20 ft, green	IDEX Health Science	1520G	
Adapter, quick connect female Luer to female 1/4-28, PEEK, red	IDEX Health Science	P-658	