

Materials List for:

Biosensor for Detection of Antibiotic Resistant Staphylococcus Bacteria

Rajesh Guntupalli¹, Iryna Sorokulova¹, Eric Olsen², Ludmila Globa¹, Oleg Pustovsky¹, Vitaly Vodyanoy¹

¹Department of Anatomy, Physiology and Pharmacology, College of Veterinary Medicine, Auburn University

²Clinical Research Laboratory, 81st Medical Group, Keesler Air Force Base

Correspondence to: Vitaly Vodyanoy at vodyavi@auburn.edu

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Materials

Name	Company	Catalog Number	Comments
Reagents			
Phosphate buffered saline (PBS)	Sigma-Aldrich, St. Louis, MO	P4417	
spectrophotometric-grade chloroform	Sigma-Aldrich, St. Louis, MO	154733	(99.8% A.C.S.)
Hexane-Anhydrous	Sigma-Aldrich, St. Louis, MO	29609-0	(95%)
Ethyl Alcohol	Pharmco products Inc. Brookfield, CT	64-17-5	190 Proof
Equipment			
PBP 2a antibody conjugated latex beads	Denka Seiken Co., Ltd, Tokyo, Japan	The MRSA-Screen test	
<i>S. aureus</i> ATCC 12600, <i>S. aureus</i> ATCC 27690 and <i>Bacillus subtilis</i> ATCC 6051 from	American Type Culture Collection (Manassas, VA);		
MRSA1, MRSA 2, MRSA 5, MRSA 13, MRSA 26, MRSA 34, MRSA 45, <i>B. anthracis</i> Sterne, <i>Salmonella typhimurium</i> LT2, <i>Shigella flexneri</i> , <i>Yersinia enterocolitica</i> , <i>Proteus mirabilis</i> , <i>Klebsiella pneumoniae</i> 13882; The lytic phage 12600	The culture collection of Auburn University, Auburn, AL		
Centrifuge	Beckman Coulter	Optima L-90K Ultra Centrifuge	
KSV 2200 LB film balance	KSV Chemicals, Finland		
Light microscope optical system	CitoViva Technology Inc., Auburn, AL		
QCM-D	Q-Sense AB, Västra Frölunda, Sweden	E4	
Scanning electron microscope (SEM)	JEOL USA Inc., Peabody, MA	JEOL-7000F SEM	
Transmitting electron microscopy (TEM)	JEOL USA Inc., Peabody, MA	JEOL, JEM 2010	
Stericup, Presterilized	Millipore Corporation, Billerica, MA	SCGPU05RE	0.22 µm, GP Express PLUS membrane
Bio-Assay dish	NUNC A/S, Denmark	240835	Dimensions(mm), 245 x 245 x 25
Pipettes	Gilson, Pipetman, France	P100, P200, P1000	
C24 Incubator Shaker	New Brunswick Scientific, CT	Classic C24	
Gold-coated quartz pieces	Auburn University, AL		Homemade
Petri dishes	Fisher Brand, USA	0875713	100 mmX15 mm
SterilGard III Advance	The Baker Company, ME	SG403	
Culture Growing Flasks	Corning Incorporated, NY	4995	PYREX 250 ml Erlenmeyer flasks

Optical Spectrometer	Genesys 20. Thermo Spectronic, USA.	4001	
Plasma Cleaner	Harrick Plasma, USA	PDC-32G	
Millipore water purification system	Millipore	Direct-Q	
Imaging Ellipsometer	Accurion, USA	nanofilm_ep ³ se	
Software	Q-Sense AB, Sweden	QSoft, QTools	