

Materials List for:

Assays for Studying the Role of Vitronectin in Bacterial Adhesion and Serum Resistance

Birendra Singh^{1,2}, Maryam Mostajeran¹, Yu-Ching Su¹, Tamim Al-Jubair¹, Kristian Riesbeck¹

¹Clinical Microbiology, Department of Translational Medicine, Lund University

²Department of Molecular Biology, Umea University

Correspondence to: Kristian Riesbeck at kristian.riesbeck@med.lu.se

URL: <https://www.jove.com/video/54653>

DOI: [doi:10.3791/54653](https://doi.org/10.3791/54653)

Materials

Name	Company	Catalog Number	Comments
1.5 mL thermomixer	Eppendorf	5355	dry block heating and cooling shaker
5 mL polystyrene round-bottom tube	BD Falcon	60819-138	12 × 75 mm style
5% CO ₂ supplied incubator	Thermo Scientific	BBD6220	
6 mL polystyrene round-bottom tube	VWR	89000-478	12 × 75 mm style with cap
24-well plates	BD Falcon	08-772-1H	Cell culture grade
30% Hydrogen peroxide (H ₂ O ₂) solution	Sigma-Aldrich	H1009-100ML	Laboratory analysis grade
75 cm ² tissue culture flask	BD Falcon	BD353136	Vented
96 well black flat bottom plate	Greiner Bio-One	655090	Tissue culture treated µClear black plates
A549 Cell Line human	Sigma-Aldrich	86012804-1VL	
Cell detachment enzyme (Accutase)	Sigma-Aldrich	A6964-500ML	Cell Culture Grade
AR2G sensors	Pall Life Science	18-5095	Sensor to immobilized protein by amino coupling
Acetone	VWR	97064-786	Analysis grade
Bovine Serum Albumins (BSA)	Sigma-Aldrich	A2058	Suitable for cell culture
Bibulous paper	VWR	28511-007	
Bio-layer interferometer	Pall Life Science	FB-50258	Bilayer interferometry measuring equipment
Crystal violet solution	Sigma-Aldrich	HT90132-1L	
C4BP (C4b binding protein)	Complement Technology, Inc.	A109	Bought as Frozen liquid form
Calcium chloride (CaCl ₂)	Sigma-Aldrich	C5670-500G	
Carbol-fuchsin solution	Sigma-Aldrich	HT8018-250ML	
Citric acid	Sigma-Aldrich	251275-500G	American Chemical Society (ACS) grade
Decolorizing solution	Sigma-Aldrich	75482-250ML-F	
<i>E. coli</i> host (<i>E. coli</i> BL21)	Novagen	69450-3	Protein expression host
F12 medium	Sigma-Aldrich	D6421	Cell Culture Grade
Flow cytometer	BD Biosciences	651154	Cell analysis grade for research applications
Fetal Calf Serum (FCS)	Sigma-Aldrich	12003C	Suitable for cell culture
Normal human serum (NHS)	Complement Technology, Inc.	NHS	Pooled human serum

FITC-conjugated donkey anti-sheep antibodies	AbD Serotec	STAR88F	Polyclonal
Gentamicin	Sigma-Aldrich	G1397	Cell culture grade
Glucose	Sigma-Aldrich	G8270-1KG	
Gelatin	Sigma-Aldrich	G9391	Suitable for cell culture
Hemocytometer	Marienfeld	640210	
HRP-conjugated anti-His tag antibodies	Abcam	ab1269	Polyclonal
Human factor H	Complement Technology, Inc.	A137	Bought as Frozen liquid form
C4BP	Complement Technology, Inc.	A109	Frozen solution
Human serum albumin	Sigma-Aldrich	A1653-10G	lyophilized powder
Histidine affinity resin column (HisTrap HP)	GE Health Care Life Science	17-5247-01	Columns prepacked with Ni Sepharose
His-tagged PH			Recombinantly expressed and purified in our lab
Iodine solution	Sigma-Aldrich	HT902-8FOZ	
Methanol	VWR	BDH1135-1LP	Analysis grade
Microscope	Olympus	IX73	Inverted microscope
Microscope slides	Sigma-Aldrich	S8902	plain, size 25 mm × 75 mm
Magnesium chloride (MgCl ₂)	Sigma-Aldrich	M8266-1KG	
Plasmid containing C terminal 6x His-tag on the backbone (pET26(b))	Novagen	69862-3	DNA vector
Polysorb microtitre plates	Sigma-Aldrich	M9410	For ELISA
Potassium hydroxide (KOH)	Sigma-Aldrich	6009	American Chemical Society (ACS) grade
Sheep anti-human Vn antibodies	AbD Serotec	AHP396	Polyclonal
Shaker	Stuart Scientific	STR6	Platform shaker
Tissue culture flask	BD Falcon	3175167	75 cm ²
Thermomixer	Sigma-Aldrich	T3317	Dry block heating and cooling shaker
Tetramethylbenzidine	Sigma-Aldrich	860336-100MG	ELISA grade
Vitronectin (Vn) from human plasma	Sigma-Aldrich	V8379-50UG	cell culture grade