

Materials List for

Imaging Molecular Adhesion in Cell Rolling by Adhesion Footprint Assay

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Citation

An, S.M., Kim, S.H., White, V.J., Yasunaga, A.B., McMahon, K.M., Murad, Y., Li, I.T.S. Imaging Molecular Adhesion in Cell Rolling by Adhesion Footprint Assay. *J. Vis. Exp.* (175), e63013, doi:10.3791/63013 (2021).

Date Published

September 27, 2021

DOI

10.3791/63013

URL

jove.com/video/63013

Materials

Name	Company	Catalog Number	Comments
4-channel drill guide	Custom made		3D printed with ABS filament
4-holes slide	Custom made		Drill clean microscope slide using a Dremel with diamond coated drill bits on a 4-channels drill guide which has a layout that matches with the centers of the 8-32 threaded holes on the aluminum clamp.
Acetone	VWR	BDH1101-4LP	
Acrylic spacer	Custom made		Cut two blocks of acrylic sheets with the dimension of 40 mm x 30 mm x 2.5 mm. On each block, drill two 3 mm holes that are precisely aligned with the 4-40 holes on the aluminium holder.
Aluminium chip holder	Custom made		Machine anodized aluminium block into a C-shaped holder with the outer dimension of 640 mm x 500 mm x 65 mm and the opening dimension of 400 mm x 380 mm x 65 mm. Inlets and outlets are tapped with 8-32 thread.
Aminosilane	AlfaAesar	L14043	CAS 1760-24-3
Antibiotic/antimycotic solution	Cytiva HyClone	SV3007901	Pen/Strep/Fungiezone
Beads, ProtG coated polystyrene	Spherotech	PGP-60-5	
Bovine serum albumin	VWR	332	
Buffer, DNA PAINT			0.05% Tween-20, 5 mM Tris, 75 mM MgCl ₂ , 1 mM EDTA
Buffer, T50M5			10mM Tris, 50 mM NaCl, 5 mM MgCl ₂
Buffer, Rolling			HBSS with 2mM CaCl ₂ , 2 mM MgCl ₂ , 10 mM Hepes, 0.1% BSA

Buffer, Wash			10 mM Tris, 50 mM NaCl, 5 mM MgCl ₂ and 2 mM CaCl ₂ , 0.05% Tween 20
Calcium chloride	VWR	BDH9224	
Cell culture flasks	VWR	10062-868	
Concentrated sulfuric acid	VWR	BDH3072-2.5LG	95-98%
Coverslip holding tweezers	Techni-Tool	758TW150	
Diamond-coated drill bits	Abrasive technology	C5250510	0.75 mm diamond drill
DNA, amine-ssDNA (top strand)	IDT DNA	Custom oligo	CCGGGCGACGCAGGAGGG /3AmMO/
DNA, biotin-ssDNA (bottom strand)	IDT DNA	Custom oligo	/5BiotinTEG/ TTTTT CCCTCCTGCGTCGCCCGG
DNA, imager strand for DNA-PAINT	IDT DNA	Custom oligo	GAGGGAAA TT/3Cy3Sp/
DNA, imager strand for permanent labelling	IDT DNA	Custom oligo	CCGGGCGACGCAGG /3Cy3Sp/
Double-sided tape	Scotch	237	3/4 inch width, permanent double-sided tape
EDTA	Thermofisher	15575020	0.5 M EDTA, pH 8.0
Epoxy	Gorilla	42001	5 minute curing time
Fetal Bovine Serum (FBS)	Avantor	97068-085	
GelGreen	Biotium	41005	
Glacial acetic acid	VWR	BDH3094-2.5LG	
Glass, Coverslips	Fisher Scientific	12-548-5P	
Glass, Microscope slide	VWR	48300-026	75 mm x 25 mm x 1 mm
Glass, Staining jar	VWR	74830-150	Wheaton Staining Jar (900620)
Hanks' Balanced Salt solution (HBSS)	Lonza	04-315Q	
Hemocytometer	Sigma-Aldrich	Z359629-1EA	
HL-60 cells	ATCC	CCL-240	
Humidity chamber slide support	Custom made		3D printed with ABS filament
Hydrogen peroxide	VWR	BDH7690-1	30%
Imidazole	Sigma-Aldrich	I2399	
Inlets/outlets	Custom made		Drill through eight 8-32 set screws using cobalt drill bits. Insert 1.5 cm polyethylene tubing (Tygon, I.D. 1/32" O.D. 3/32") into each hollow setscrew
Iscove Modified Dulbecco Media (IMDM)	Lonza	12-722F	
Magnesium chloride	VWR	BDH9244	
Magnetic Ni-NTA beads	Invitrogen	10103D	
Mailer tubes	EMS	EMS71406-10	
Methanol	VWR	BDH1135-4LP	
Micro Bio-Spin P-6 Gel Columns	Biorad	7326200	In SSC Buffer
PEG	Laysan Bio	MPEG-SVA-5000	
PEG-biotin	Laysan Bio	Biotin-PEG-SVA-5000	
Potassium hydroxide	VWR	470302-132	
Protein, Protein G	Abcam	ab155724	N-terminal His-Tag and C-terminal cysteine
Protein, P-selectin-Fc	R&D System	137-PS	Recombinant Human P-Selectin/CD62P Fc Chimera Protein, CF
Protein, Streptavidin	Cedarlane	CL1005-01-5MG	
Pump Syringe	Harvard Apparatus	704801	

Sodium bicarbonate	Ward's Science	470302-444	
Sodium chloride	VWR	97061-274	
Sulfo-SMCC	ThermoFisher	22322	
Syringe	Hamilton	81520	Syringes with PTFE luer lock, 5 mL
Syringe needles	BD	305115	Precision Glide 26 G, 5/8 Inch Length
TCEP	Sigma-Aldrich	C4706-2G	
Tris	VWR	BDH4502-500GP	
Tubing, Adaptor	Tygon	ABW00001	Formulation 3350, I.D. 1/32"; O.D. 3/32"
Tubing, Polyethylene	BD Intramedic	427406	Intramedic (PE20) I.D. 0.38mm; O.D. 1.09mm
Tween-20	Sigma-Aldrich	93773	