

Materials List for:

Covalent Immobilization of Proteins for the Single Molecule Force Spectroscopy

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Materials

Name	Company	Catalog Number	Comments
Material			
2-Propanol	Carl Roth	6752	
1-(3-dimethylaminopropyl)-3-ethylcarbodiimide	Sigma-Aldrich	03450	EDC
Acetic acid	Carl Roth	3738	100 %; analytical purity
Doubly distilled water			
Ethanol	Carl Roth	9065	≥ 99.8 %; analytical purity
Ethoxy silane polyethylene glycol acid	Nanocs	PG2-CASL-5k	5 kDa; COOH-PEG-Si(OC ₂ H ₅) ₃
Hydrochloric acid	Carl Roth	X896	32 %
N-Hydroxysuccinimid	Merck	804518	NHS; for synthesis
Phosphate Buffered Saline - Dulbecco	Biochrom	L1825	PBS
Probe molecule e.g. Fibronectin, human plasma	Sigma-Aldrich	F1056	
Probe molecule e.g. RrgA			Produced in laboratory
Sodiumchlorid	Carl Roth	9265	NaCl
Tris(hydroxymethyl)-aminomethan	Carl Roth	AE15	≥ 99,3 %; TRIS; Buffer Grade
Name	Company	Catalog Number	Comments
Equipment			
Beakers			
Glass cutter			
Glass slides	Carl Roth	0656	
Inert gas desiccator	Sicco		
Inverted Microscope - Zeiss Axiovert 200	Zeiss		
JPK NanoWizard 1	JPK Instruments		
JPK NanoWizard SPM and DP software	JPK Instruments		
Laboratory oven	Binder		
Magnetic stirrer	IKA		
Micro spatula			

Microcentrifuge tubes			
Microsoft Excel	Microsoft		
Parafilm M	Brand	701606	
Petri dishes			
pH-meter	Knick		
Pipettes	Starlab		10-100 μ l, 50-200 μ l, 100-1000 μ l
Precision balance	Acculab		
Silicon nitride cantilever - MLCT	Bruker AXS S.A.S		Spring constant \leq 100 pN/nm
Sonication bath	Bandelin		
Staining jar			
Stereo microscope - Zeiss Stemi	Zeiss		
Stir bar			
Kimtech science precision wipes	Kimberly-Clark		
Tweezers			
UV PenRay	UVP, LLC	90-0012-01	Mercury spectrum with the primary energy at 254 nm
Vacuum desiccator			
Vacuum pump			
Vortex mixer	VWR		
Weighing paper	Carl Roth	TP64	