

Materials List for:

A Protocol for Using Förster Resonance Energy Transfer (FRET)-force Biosensors to Measure Mechanical Forces across the Nuclear LINC Complex

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URL: <https://www.jove.com/video/54902>

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Materials

Name	Company	Catalog Number	Comments
Nesprin-TS DNA	Addgene	68127	Retrieve from https://www.addgene.org/68127/
Nesprin-HL DNA	Addgene	68128	Retrieve from https://www.addgene.org/68128/
mTFP1 DNA	Addgene	54613	Retrieve from https://www.addgene.org/54613/
mVenus DNA	Addgene	27793	Retrieve from https://www.addgene.org/27793/
TSmod DNA	Addgene	26021	Retrieve from https://www.addgene.org/26021/
Competent Cells	Bioline	BIO-85026	
Liquid LB Media	ThermoFisher	10855001	https://www.thermofisher.com/order/catalog/product/10855001
Solid LB Bacterial Culture Plates	Sigma-Aldrich	L5667	http://www.sigmaaldrich.com/catalog/product/sigma/l5667?lang=en&region=US
Ampicillin	Sigma	A9518	
Spectrophotometer	Biorad	273 BR 07335	SmartSpec Plus
quartz cuvette	Biorad	1702504	Cuvette for SmartSpec Plus
DNA isolation kit	Macherey-Nagel	740412.5	NucleoBond Xtra Midi Plus
6-well cell culture dish	Falcon-Corning	353046	Multiwell 6-well Polystyrene Culture Dish
Dulbecco's Modified Eagle Medium, (DMEM) cell media	Gibco	11995-065	DMEM(1x)
Bovine Serum	Life Technologies	16170-078	
reduced serum cell media	Gibco	31985-070	Reduced Serum Medium, "optimum"
Lipid Carrier Solution	invitrogen	11668-019	Lipid Reagent, "Lipofectamine 2000"
1.5 mL sterile plastic tube	Denville	c2170	
Trypsin	Gibco	25200-056	0.25% Trypsin-EDTA (1x)
glass-bottom microscope viewing dish	In Vitro Scientific	D35-20-1.5-N	35 mm Dish with 20 mm Bottom Well #1.5 glass
Fibronectin	ThermoFisher	33016015	fibronectin human protein, plasma
Phosphate Buffered Saline (PBS)	Gibco	14190-144	Dulbecco's Phosphate Buffered Saline
15 mL sterile centrifuge tube	Greiner bio-one	188261	
swinging rotor centrifuge	Thermo electron	Centra CL2	Swinging rotor thermo electron 236
cell culture biosafety hood	Forma Scientific	1284	

climate controlled cell culture incubator	ThermoFisher	3596	
inverted LED widefield fluorescent microscope	Life technologies	EVOS FL	
Clear HEPES buffered imaging media	Molecular Probes	A14291DJ	
Fetal bovine Serum	Life technologies	10437-028	
Temperature Controlled-Inverted confocal w/458 and 515 nm laser sources	Zeiss	LSM 710-w/spectral META detector	
Outgrowth Media	Newengland Biolabs	B9020s	
NIH 3T3 Fibroblasts	ATCC	CRL-1658	