

Materials List for:

# FRET Imaging in Three-dimensional Hydrogels

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URL: <https://www.jove.com/video/54135>

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## Materials

Name	Company	Catalog Number	Comments
Polydimethylsiloxane (PDMS) [Sylgard 184 Elastomer Kit]	Fisher Scientific (Ellsworth Adhesives)	NC0162601	Reagents
Polyethylene glycol dimethacrylate (PEGDM)	Prepared according to Lin-Gibson with PEG from Sigma Aldrich	95904	Reagents
3-(Trimethoxysilyl)propyl methacrylate	Sigma Aldrich	M6514	Reagents
3-glycidoxypropyltrimethoxysilane	Sigma Aldrich	440167	Reagents
Dimethyl Phenylphosphonite	Sigma Aldrich	149470-5g	Reagents
2,4,6-trimethylbenzoyl Chloride	Fisher Scientific	AC244280100	Reagents
2-Butanone	Fisher Scientific	AC149670010	Reagents
Lithium Bromide	Fisher Scientific	AC199871000	Reagents
Isopropanol	Sigma Aldrich	190764	Reagents
Sigmacote (siliconizing reagent)	Sigma Aldrich	SL2	Reagents
Toluene	Fisher Scientific	AC36441-0010	Reagents
Phosphate Buffered Saline (PBS)	Hyclone	SH3025601	Reagents
Opti-MEM Reduced Serum Medium, no phenol red (phenol- and serum-free medium)	Life Technologies	11058-021	Reagents
FuGENE HD Transfection Reagent (transfection reagent)	Promega	E2311	Reagents
Cellstripper (cell dissociation solution)	Corning	25-056-CI	Reagents
Growth Factor Reduced Matrigel, Phenol Free	Corning	356231	Reagents
Forskolin	Sigma Aldrich	F6886	Reagents
Pipette Tips (10,200,1,000 µl)	Fisher Scientific	02-707-474, 02-707-478, 02-707-480	Disposable lab equipment
Powder Free Examination Gloves	Fisher Scientific	19-149-863B	Disposable lab equipment
Aluminum foil	Fisher Scientific	01-213-100	Disposable lab equipment
Biopsy punch (3 mm)	Miltex	3332	Disposable lab equipment
Glass coverslips	Fisher Scientific	12-544C	Disposable lab equipment
Precoated glass coverslips (epoxysilane)	Arrayit	CCSL	Disposable lab equipment
Glass slide	Fisher Scientific	12550D	Disposable lab equipment
Sterile vials (15 ml, 50 ml conical)	Fisher Scientific	14-959-70C, 14-959-49A	Disposable lab equipment
Cell culture dish (6-well)	Falcon	351146	Disposable lab equipment

Epifluorescent Microscope with motorized stage	Nikon	MEA53100 (Eclipse TiE Inverted)	Large/non-disposable lab equipment
Adjustable Specimen Holder for XY Stage	Nikon	77011393	Non-disposable lab equipment
60X (1.3 NA) objective (CFI Plan Apochromat 60XH Lamda)	Nikon	MRD01605	Non-disposable lab equipment
CFP/YFP light source and excitation / emission filter holders (Lambda light source & wheel, Lambda emission filter system)	Nikon (Sutter Instrument reseller)	77016231, 77016088	Non-disposable lab equipment
CYF/YFP filter set	Nikon (Chroma Technology Corp)	77014928	Non-disposable lab equipment
Camera (ORCA Flash 4.0 v1)	Nikon (Hamamatsu reseller)	77054076	Non-disposable lab-equipment
NIS-Elements 40.20.02 microscope software)	Nikon	MQS31100	Non-disposable lab equipment
Prism (spreadsheet and graphing software)	GraphPad Software, Inc	Version 6	Non-disposable lab equipment
OmniCure S1000 UV Spot Curing Lamp System with 365nm filter or other light source ( $\lambda = 365$ or $405$ )	OmniCure	S1000	Large/non-disposable lab equipment
Pipette Aid	Drummond Scientific Co.	DP-100	Non-disposable lab equipment
Hemocytometer	Hausser Scientific	Reichert Bright-Line 1475	Non-disposable lab equipment
Vacuum desiccator chamber/degasser	Any		Large/non-disposable lab equipment
Tissue Culture Hood	Any		Large/non-disposable lab equipment
Chemical Fume Hood	Any		Large/non-disposable lab equipment
Oven	Any		Large/non-disposable lab equipment
Spatula	Any		Non-disposable lab equipment
Beaker	Any		Non-disposable lab equipment
Incubator	Any		Large/non-disposable lab equipment