

Materials List for:

Graphene Coatings for Biomedical Implants

Ramakrishna Podila^{1,2}, Thomas Moore³, Frank Alexis³, Apparao Rao^{1,4}

¹Department of Physics, Clemson University

²Department of Pharmacology and Toxicology, East Carolina University

³Department of Bioengineering, Clemson University

⁴Center for Optical Materials Science and Engineering Technologies, Clemson University

Correspondence to: Apparao Rao at arao@clemson.edu

URL: <https://www.jove.com/video/50276>

DOI: [doi:10.3791/50276](https://doi.org/10.3791/50276)

Materials

Name	Company	Catalog Number	Comments
Reagent			
Dulbecco's Modified Eagle Medium	ATCC	30-2002	
Thiazolyl blue tetrazolium bromide	Sigma-Aldrich	M2128	
CellTiter 96 Aqueous One solution cell proliferation assay (MTS)	Promega	G3582	
Dimethyl sulfoxide	Sigma-Aldrich	D8418	
36.5% formaldehyde	Sigma-Aldrich	F8775	
Triton X-100	Sigma-Aldrich	T8787	
Alexafluor 488 phalloidin	Life Technologies	A12379	
VECTASHIELD mounting medium with DAPI	Vector Laboratories	H-1200	
Human serum albumin	Sigma-Aldrich	A9511	
Human fibrinogen			
Tris/Glycine/SDS	Bio-Rad	161-0732	
Ready Gel Tris-HCl Gel	Bio-Rad	161-1158	
Acetic acid	Sigma-Aldrich	45726	
SYPRO Red	Life Technologies	S-6653	
Protein low BCA assay	Lamda Biotech	G1003	
Precision Plus Protein Kaleidoscope Standard	Bio-Rad	161-0375	
Immun-Blot PVDF membrane	Bio-Rad	162-0177	
Blotting grade blocker non-fat dry milk	Bio-Rad	170-6404XTU	
Anti-actin antibody produced in rabbit	Sigma-Aldrich	A2066	
BM Chemiluminescence Western Blotting kit (mouse/rabbit)	Roche Applied Science	11520709001	
RIPA buffer	Sigma-Aldrich	R0278	
NiTi (51% Ni, 49% Ti)	Alfa-Aesar	44953	
Equipment			
Horiba JobinYvon	Raman spectrometer	Dilor XY 98	
Nikon	Confocal microscope	Eclipse TI microscope	
Thermoscientific	Plate reader		
Bio-Rad	Power supply	164-5050	PowerPac basic power supply
Bio-Rad	Electrophoresis cell	165-8004	Mini-PROTEAN tetra cell

Bio-Rad	Gel holder cassette	170-3931	Mini gel holder cassette
---------	---------------------	----------	--------------------------