

Materials List for:

Minimally Invasive Muscle Embedding (MIME) - A Novel Experimental Technique to Facilitate Donor-Cell-Mediated Myogenesis

Joseph A Roche¹, Morium Begam¹, Sujay S Galen¹

¹Department of Health Care Sciences, Physical Therapy Program, College of Pharmacy and Health Sciences, Wayne State University

Correspondence to: Joseph A Roche at joseph.roche@wayne.edu

URL: <https://www.jove.com/video/55731>

DOI: [doi:10.3791/55731](https://doi.org/10.3791/55731)

Materials

Name	Company	Catalog Number	Comments
NSG-GFP mice	The Jackson Laboratory (Bar Harbor, ME)	Stock #021937	Immunodeficient host mice that ubiquitously express green fluorescent protein
C57BL/6J mice	The Jackson Laboratory (Bar Harbor, ME)	Stock #000664	Control donor mice
Tabletop isoflurane vaporizer	VetEquip (Livermore, CA)	Item #901801	Inhaled anesthesia system
Magic depilatory crea	Softsheen Carson (New York, NY)	N/A	Razorless hair removal cream
4-0 Silk, black, braided, non-absorbable sutures	Roboz Surgical Instrument Co, Inc. (Gaithersburg, MD)	SUT106631	Guiding sutures for donor tissue
VetBond veterinary tissue adhesive	3M (Maplewood, MN)	Catalog #1469Sb	Veterinary tissue adhesive for sutureless skin closure
Barium chloride	Ricca Chemical Company (Arlington, TX)	Product #R0854000-500A 854-16	Myotoxin to induce muscle damage and stimulate regeneration
Deltaphase isothermal gel heating pad	Braintree Scientific (Braintree, MA)	Item #39DP	Heating pad to provide thermal support to animals while under anesthesia
HM525NX cryostat	ThermoFisher (Waltham, MA)	Catalog #HM525NX	Cryostat to make frozen sections of muscle
Vectashield Antifade Medium	Vector Laboratories, Inc. (Burlingame, CA)	Catalog Number: H-1000	Antifade medium to preserve fluorescence in immunofluorescently labeled samples
Rabbit anti Desmin Antibody	Labvision Thermo Scientific (Fremont, CA)	RB9014P	Rabbit anti desmin antibody for desmin immunofluorescent labeling
Goat anti Rabbit Alexa 568 Antibody	ThermoFisher (Waltham, MA)	Catalog#: A-21069	Goat anti rabbit secondary antibody for desmin immunofluorescent labeling
4',6-diamidino-2-phenylindole (DAPI)	Seracare (Milford, MA)	Catalog #5930-0006 or 71-03-01	Reagent for fluorescent labeling of nuclei
Axio Scope.A1 microscope	Carl Zeiss (Peabody, MA)	Product #Axio Scope.A1	Light and fluorescence microscope
Photoshop CS4	Adobe Systems (San Jose, CA)	Photoshop CS4	Imaging Software for perform image tiling
Image J	National Institutes of Health (Bethesda, MD)	Image J for Windows 64-bit Operating System	Imaging Software for quantitative fluorescence analysis