

Materials List for

Human Ex vivo Wound Model and Whole-Mount Staining Approach to Accurately Evaluate Skin Repair

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jove.com/video/62326

Materials

Name	Company	Catalog Number	Comments
50 mL Falcon Tubes	Falcon	352070	For skin washing
1.5 ml TubeOne Microcentrifuge Tubes, Natural (Sterile)	Starlab	S1615-5510	For whole-mount staining
48-Well CytoOne Plate, TC-Treated	Starlab	CC7682-7548	For whole-mount staining
Acetic Acid Glacial	Fisher Chemical	A/0400/PB15	Part of fixative
Alkyltrimethylammonium Bromide	Sigma-Aldrich	M7635	Part of fixative
Anti-Alpha Smooth Muscle Actin Antibody [1A4]	Abcam	ab7817	Stains blood vessels
Anti-Collagen I Antibody	Abcam	ab34710	Stains collagen
Anti-Cytokeratin 14 Antibody [LL002]	Abcam	ab7800	Stains epidermis
CD1A Antibody (CTB6)	Santa Cruz Biotechnology	sc-5265	Stains Langerhans cells
DAPI (4',6-diamidino-2-phenylindole, dihydrochloride)	Thermo Fisher Scientific	62247	Counterstain for cell nuclei
Falcon 60mm Petri dishes	Falcon	353004	Human ex vivo culture
Fibronectin Antibody (EP5)	Santa Cruz Biotechnology	sc-8422	Stains fibronectin
Formaldehyde, Extra Pure, Solution 37-41%, SLR	Fisher Chemical	F/1501/PB17	Part of fixative
Gauze Swabs	Medisave	CS1650	To clean skin
Gibco™ Antibiotic-Antimycotic Solution	Thermo Fisher Scientific	15240062	Human ex vivo culture
Gibco DMEM, high glucose, no glutamine	Thermo Fisher Scientific	11960044	Human ex vivo culture
Gibco Fetal Bovine Serum	Thermo Fisher Scientific	10500064	Human ex vivo culture
Gibco HBSS, no calcium, no magnesium	Thermo Fisher Scientific	14170088	Human ex vivo culture
Gibco L-Glutamine (200 mM)	Thermo Fisher Scientific	25030081	Human ex vivo culture
Hydrogen Peroxide	Sigma-Aldrich	H1009-100ML	For immunoperoxidase staining
ImageJ Software	National Institutes of Health	N/A	For image analysis
Invitrogen IgG (H+L) Cross-Adsorbed Goat anti-Mouse, Alexa Fluor 488	Thermo Fisher Scientific	A11001	Secondary antibody used depends on required fluorochromes and primary antibody

Invitrogen IgG (H+L) Cross-Adsorbed Goat anti-Rabbit, Alexa Fluor 594	Thermo Fisher Scientific	A11012	<i>Secondary antibody used depends on required fluorochromes and primary antibody</i>
Invitrogen LIVE/DEAD Viability/Cytotoxicity Kit, for mammalian cells	Thermo Fisher Scientific	L3224	<i>For viability assessment of tissue</i>
Iris Forceps, 10 cm, Curved, 1x2 teeth	World Precision Instruments	15917	<i>To create wounds</i>
Iris Scissors, 11 cm, Curved, SuperCut, Tungsten Carbide	World Precision Instruments	501264	<i>To create wounds</i>
Iris Scissors, 11 cm, Straight, SuperCut, Tungsten Carbide	World Precision Instruments	501263	<i>To remove adipose tissue</i>
Keratin 1 Polyclonal Antibody, Purified	Biologend	905201	<i>Stains epidermis</i>
Keratin 14 Polyclonal Antibody, Purified	Biologend	905301	<i>Stains epidermis</i>
LSM 710 Confocal Laser Scanning Microscope	Carl Zeiss	Discontinued	<i>For fluorescent imaging</i>
Merck Millipore Absorbent pads	Merck Millipore	AP10045S0	<i>Human ex vivo culture</i>
Merck Millipore Nylon Hydrophilic Membrane Filters	Merck Millipore	HNWP04700	<i>Human ex vivo culture</i>
Normal Goat Serum Solution	Vector Laboratories	S-1000-20	<i>Animal serum used depends on secondary antibody</i>
Phosphate Buffer Solution	Sigma-Aldrich	P3619	<i>For wash buffer</i>
Sodium Azide	Sigma-Aldrich	S2002	<i>For blocking buffer</i>
Sodium Chloride	Fisher Bioreagents	BP358-212	<i>Part of fixative</i>
Sterilisation Pouches	Medisave	SH3710	<i>To sterilise instruments</i>
Stiefel 2mm biopsy punches	Medisave	BI0500	<i>For partial thickness wound</i>
Stiefel 6mm biopsy punches	Medisave	BI2000	<i>For outer explant</i>
Thermo Scientific Sterilin Standard 90mm Petri Dishes	Thermo Fisher Scientific	101VR20	<i>To prepare skin</i>
Triton X-100	Fisher Chemical	T/3751/08	<i>For wash buffer</i>
VECTASTAIN Elite ABC-HRP Kit, Peroxidase (Rabbit IgG)	Vector Laboratories	PK-6101	<i>For immunoperoxidase staining; HRP kit used depends on primary antibody</i>
Vector NovaRED Substrate Kit, Peroxidase (HRP)	Vector Laboratories	SK-4800	<i>For immunoperoxidase staining</i>
Wireless Digital Microscope	Jiusion	N/A	<i>For brightfield imaging</i>