

Materials List for:

Perturbing Endothelial Biomechanics via Connexin 43 Structural Disruption

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Materials

Name	Company	Catalog Number	Comments
18 mm coverslip	ThermoFisher	18CIR-1	Essential to flatten polyacrylamide gels
2% bis-acrylamide	BIO-RAD	1610143	Component of polyacrylamide gel
2',5'-Dihydroxychalcone	SIGMA	IDF00046	To disrupt Cx43 structure
3-(Trimethoxysilyl)propyl methacrylate	SIGMA	2530-85-0	Stock solution to make bind silane mixture with acetic acid and ultra-pure water
40% Acrylamide	BIO-RAD	1610140	Component of polyacrylamide gel
Acetic acid	Fisher-Sceintific	64-19-7	Essential to make bind saline solution
Alexa Fluro 488 goat anti-mouse IgG;	ThermoFisher	Catalog # A-11001	Secondary antibody
Ammonium persulfate	BIO-RAD	1610700	Polyacrylamide gel polymerizing agent
Bovine Serum Albumin (BSA)	SIGMA	9048-46-8	To make blocking solution
Bovine Type I Atelo-Collagen Solution, 3 mg/mL, 100 mL	Advance Biomatrix	5005-100ML	Use as a extracellular matrix
Corning Cell Culture Phosphate Buffered Saline (1x)	Fisher-Sceintific	21040CV	Buffer Saline needed for cell culture
Dimethyl Sulfoxide, Fisher BioReagents	Fisher-Sceintific	67-68-5	To dissolve chalcone and make stock solution
Fluoromount-G with DAPI	ThermoFisher	00-4959-52	Mounting medium for immunostaing used to stain for DAPI
Fluorescent microsphere Carboxylate-modified beads	ThermoFisher	F8812	0.5 micron carboxylate-modified beads (red), 2% solids
HEPES buffer solution 1 M	SIGMA	7365-45-9	Essential to
LVES	ThermoFisher	A1460801	Essential HUEVC media 200 supplement
Medium 200	ThermoFisher	M200500	Essential media for HUVEC cell culture
Mouse monoclonal Cx43 antibody (CX - 1B1)	ThermoFisher	Catalog #13-8300	Primary antibody for Cx43
Petri dish (35 mm dia)	CellVis	D35-20-1.5H	35 mm petri dish with a 20 mm center well
Sulfo-SANPAH Crosslinker 100 mg	Proteochem	102568-43-4	Essential to functionalize polyacrylamide gel surface
SYLGARD 184 Silicone Elastomer Kit	DOW corning	2646340	Silicon elastomer with curing agent to make PDMS
TEMED	BIO-RAD	1610801	Polyacrylamide gel polymerizing agent

Triton-X 100	SIGMA	9002-93-1	To permeabilize cells
Trypsin -EDTA	ThermoFisher	25300054	Used to detach cells