

Materials List for:

Manual Isolation of Adipose-derived Stem Cells from Human Lipoaspirates

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Materials

Name	Company	Catalog Number	Comments
Reagent			
DMEM (Dulbecco's Modification of Eagle's Medium)	Mediatech Cellgro	10-013-CV	with 4.5 g/ml glucose, L-glutamine, sodium pyruvate
Penicillin/Streptomycin	Mediatech Cellgro	30-002-CI	10,000 IU/ml penicillin/10,000 µg/ml streptomycin
Amphotericin B	Mediatech Cellgro	30-003-CF	250 µg/ml amphotericin B
10X PBS (Phospho-buffered Saline)	Mediatech Cellgro	25-053-CI	without calcium, without magnesium
Trypsin/EDTA	Mediatech Cellgro	20-031-CV	0.25 % trypsin/2.21mM EDTA
Collagenase type IA (from Clostridium histolyticum)	Sigma	C2674	crude preparation; <125 collagen digestion units/mg solid
FBS (Fetal Bovine Serum) heat inactivated	Gemini Bioproducts	100106	USDA source, heat inactivated
10 ml serological pipettes	Genesee Scientific	12-104	
25 ml serological pipettes	Genesee Scientific	12-106	
50 ml polypropylene centrifuge tubes	Genesee Scientific	21-106	
100 mm tissue culture dishes	Genesee Scientific	25-202	
150 mm tissue culture dishes	Genesee Scientific	25-203	
500 ml Stericup Filter Units	Millipore	SCGPU05RE	PES membrane, 0.22 µm pore
Cell strainers	FisherBrand	22-363-549	100 µm nylon mesh
dexamethasone - water soluble	Sigma	D-2915	
L-ascorbic-acid 2 phosphate	Sigma	A-8960	
β-glycerophosphate disodium salt	Sigma	G-9422	also known as glycerophosphate
insulin	Sigma	I-6634	made from bovine pancreas
indomethacin	Sigma	I-7378	
apo-transferrin	Sigma	T-4382	
TGFβ1	R&D Systems	240-B-002	recombinant human
Oil Red O	Sigma	O-0625	
Alcian Blue	Sigma	A-5268	
Silver nitrate	Sigma	S-0319	
Hydrochloric acid	Fisher Scientific	A144	
Paraformaldehyde	Fisher Scientific	30525-89-4	supplied as a 16 % stock

Name	Company	Catalog Number	Comments
Equipment Needed			
Class II A/B Biosafety hood	Thermo Scientific		ensure hood has vacuum lines for aspiration
Benchtop centrifuge	Hermle Labnet	Z383	Swing-out rotor for 50 ml tubes required, capable of 1200xg
Water bath	Fisher Scientific Isotemp	S52602Q	5-10L capacity, capable of 37C
Automated Pipette Aids	Drummond Pipette Aid XL	4-000-105	
CO ₂ Incubator	Thermo Scientific	Forma 310	direct heat or water jacketed