

Materials List for

Isolation of Whole Cell Protein Lysates from Mouse Facial Processes and Cultured Palatal Mesenchyme Cells for Phosphoprotein Analysis

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Materials

Name	Company	Catalog Number	Comments
Equipment			
Block for mini dry bath	Research Products International Corp	400783	
ChemiDoc XRS+ imaging system with Image Lab software	Bio-Rad	1708265	chemiluminescence imager
CO ₂ incubator, air jacket	VWR	10810-902	
Dissecting board, 11 x 13 in	Fisher Scientific	09 002 12	
Electrophoresis cell, 4-gel, for mini precast gels with mini trans-blot module	Bio-Rad	1658030	
Hybridization oven	Fisher Scientific	UVP95003001	
Microcentrifuge 5415 D with F45-24-11 rotor (Eppendorf)	Sigma Aldrich	Z604062	
Mini dry bath	Research Products International Corp	400780	
Orbital shaker	VWR	89032-092	
pH meter	VWR	89231-662	
Power supply for SDS-PAGE	Bio-Rad	1645050	
Rectangular ice pan, maxi 9 L	Fisher Scientific	07-210-093	
Stemi 508 stereo microscope with stand K LAB, LED ring light	Zeiss	4350649020000000	dissecting microscope
Timer	VWR	62344-641	
Tube revolver	Fisher Scientific	11 676 341	
Vortex mixer	Fisher Scientific	02 215 414	
Water bath	VWR	89501-472	
Western blot box	Fisher Scientific	NC9358182	
Materials			

Cell culture dishes, 6 cm	Fisher Scientific	12-565-95	
Cell culture plates, 12 well	Fisher Scientific	07-200-82	
Cell lifters	Fisher Scientific	08-100-240	
CO ₂	Airgas	CD USP50	
Conical tubes, polypropylene, 50 mL	Fisher Scientific	05-539-13	
Dumont #5 fine forceps	Fine Science Tools	11254-20	
Embryo spoon	Fine Science Tools	10370-17	
Microcentrifuge tubes, 0.5 mL	VWR	89000-010	
Microcentrifuge tubes, 1.5 mL	VWR	20170-038	
Pasteur pipet, 5.75"	Fisher Scientific	13-678-6A	
Pasteur pipet, 9"	VWR	14672-380	
Petri dishes, 10 cm	Fisher Scientific	08-757-100D	
Petri dishes, 35 mm	Fisher Scientific	FB0875711YZ	
Pouches, transparent, polyethylene lining	Fisher Scientific	01-812-25B	
PVDF membrane	Fisher Scientific	IPVH00010	
Semken forceps	Fine Science Tools	11008-13	
Small latex bulb, 2 mL	VWR	82024-554	
Surgical scissors	Fine Science Tools	14002-12	
Syringe filter, 25 mm, 0.2 µm pore size	Fisher Scientific	09-740-108	
Syringe with luer tip, 10 mL	VWR	BD309604	
Transfer pipet	Fisher Scientific	13-711-22	
Western blot cassette opening lever	Bio-Rad	4560000	
Whatmann 3MM chr chromatography paper	Fisher Scientific	05-714-5	
Reagents			
4-15% Precast protein gels, 10-well, 30 µL	Bio-Rad	4561083	
β-glycerophosphate disodium salt hydrate	Sigma Aldrich	G5422-25G	stock concentration 1 M
β-mercaptoethanol	Sigma Aldrich	M3148-100ML	
Bovine serum albumin, fraction V, heat shock tested	Fisher Scientific	BP1600-100	
Bromophenol blue	Fisher Scientific	AC403140050	
Complete mini protease inhibitor cocktail	Sigma Aldrich	11836153001	stock concentration 25x
DC protein assay kit II	Bio-Rad	500-0112	
DMEM, high glucose	Gibco	11965092	
E7, mouse monoclonal beta tubulin primary antibody, concentrate 0.1 mL	Developmental Studies Hybridoma Bank	E7	1:1,000
ECL western blotting substrate	Fisher Scientific	PI32106	low picogram range
ECL western blotting substrate	Genesee Scientific	20-302B	low femtogram range
Electrophoresis buffer, 5 L	Bio-Rad	1610772	stock concentration 10x
Ethanol, 200 proof, 1 gallon	Decon Laboratories, Inc.	2705HC	EtOH
Ethylenediaminetetraacetic acid, Di Na salt dihydr. (crystalline powd./ electrophor.)	Fisher Scientific	BP120-500	EDTA
Fetal bovine serum, characterized, US origin, 500 mL	HyClone	SH30071.03	
Glycerol (certified ACS)	Fisher Scientific	G33-4	

HRP-conjugated secondary antibody, goat anti-mouse IgG	Jackson ImmunoResearch Laboratories	115-035-146	1:20,000
HRP-conjugated secondary antibody, goat anti-rabbit IgG	Jackson ImmunoResearch Laboratories	111-035-003	1:20,000
Hydrochloric acid solution, 6N (certified)	Fisher Scientific	SA56-500	HCl
Igepal Ca - 630 non-ionic detergent	Fisher Scientific	ICN19859650	Nonidet P-40
Isopropanol (HPLC)	Fisher Scientific	A451-1	
L-glutamine	Gibco	25030081	stock concentration 200 mM
Methanol	Fisher Scientific	A454-4	
p44/42 MAPK (Erk1/2) primary antibody	Cell Signaling Technology	9102S	1:1,000; anti-Erk1/2
PDGF-BB recombinant ligand, rat	Fisher Scientific	520BB050	
PDGF Receptor β primary antibody	Cell Signaling Technology	3169S	1:1,000
Penicillin-Streptomycin	Gibco	15140122	stock concentration 100 U/mL, 100 μ g/mL
Phenylmethanesulfonyl fluoride, 99%	Fisher Scientific	AC215740100	PMSF; stock concentration 100 mM
Phospho-p44/42 MAPK (Erk1/2) primary antibody	Cell Signaling Technology	9101S	1:1,000, anti-phospho-Erk1/2
Phospho-PDGF Receptor α /PDGF Receptor β primary antibody	Cell Signaling Technology	3170S	1:1,000
Potassium chloride (white crystals)	Fisher Scientific	BP366-500	KCl
Potassium phosphate monobasic (white crystals)	Fisher Scientific	BP362-500	KH ₂ PO ₄
SDS solution, 10%	Bio-Rad	161-0416	
Sodium chloride (crystalline/biological, certified)	Fisher Scientific	S671-3	NaCl
Sodium fluoride (powder/certified ACS)	Fisher Scientific	S299-100	NaF; aliquot for one time use; stock concentration 1 M
Sodium orthovanadate, 99%	Fisher Scientific	AC205330500	Na ₃ VO ₄ ; stock concentration 100 mM
Sodium phosphate dibasic anhydrous (granular or powder/certified ACS)	Fisher Scientific	S374-500	Na ₂ HPO ₄
Tissue culture PBS	Fisher Scientific	21-031-CV	
Transfer buffer, 5 L	Bio-Rad	1610771	stock concentration 10x
Tris base (white crystals or crystalline powder/molecular biology)	Fisher Scientific	BP152-1	
Trypsin	BioWorld	21560033	
Tween 20	Fisher Scientific	BP337-500	
Western blot molecular weight marker	Bio-Rad	1610374	
Software			
ImageJ software	National Institutes of Health		
Animals			
Female 129S4 mice			gift of Dr. Philippe Soriano, Icahn School of Medicine at Mount Sinai