

Materials List for

Global Level Quantification of Histone Post-Translational Modifications in a 3D Cell Culture Model of Hepatic Tissue

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Materials

Name	Company	Catalog Number	Comments
0.05% trypsin-EDTA solution	Gibco	25300054	
0.5-20 µL pipet tips	BRAND	13-889-172 (Fisher Scientific)	
1.5 mL microcentrifuge tubes	Bio-Rad	2239480	
10 µL multi-channel pipette	BRAND	BR7059000 (Millipore Sigma)	
10 mL syringe	Henke Sass Wolf	14-817-31 (Fisher Scientific)	Luer lock tip, graduated to 12 mL
10, 20, 200, and 1000 µL single-channel pipettes	Eppendorf	14-285-904 (Fisher Scientific)	
1000 µL pipet tips	Rainin	30389164	
18 G syringe needle	Air-Tite	14-817-100 (Fisher Scientific)	3" length, 0.05" diameter
200 µL multi-channel pipette	Corning	4082	
2-200 µL pipet tips	BRAND	Z740118 (Millipore Sigma)	
24-well ultra-low attachment microplate	Corning	07-200-602	
75 cm ² U-shaped cell culture flask	Corning	461464U	Untreated, with vent cap
96-well skirted plate	Axygen	PCR-96-FS-C (Corning)	
Acetone	Fisher Scientific	A949-1	Acetone should be used cold
Ammonium bicarbonate (NH ₄ HCO ₃)	Sigma-Aldrich	A6141-25G	
Ammonium hydroxide solution	Fisher Scientific	AC423300250	
Cell culture grade water	Corning	25-055-CV	
ClinoReactor	CelVivo	10004-12	Bioreactor for 3D cell culture
ClinoStar	CelVivo	N/A	Clinostat CO ₂ incubator for 3D cell culture
Control unit	CelVivo	N/A	Tablet for ClinoStar settings
Dulbecco's Modified Eagle's Medium (DMEM)	Corning	17-205-CV	1X solution with 4.5 g/L glucose and sodium pyruvate, without L-glutamine and phenol red
Fetal bovine serum (FBS)	Corning	35-010-CV	

Formic acid	Thermo Scientific	28905	
Fume hood	Mott	N/A	Model 7121000
Glass Pasteur pipette	Fisher Scientific	13-678-8B	9", cotton-plugged, borosilicate glass, non-sterile
Glutagro supplement	Corning	25-015-CI	200 mM L-ananyl-L-glutamine
Hank's Balanced Salt Solution (HBSS)	Corning	21-022-CV	1X solution without calcium, magnesium, and phenol red
HPLC grade acetonitrile	Fisher Scientific	A955-4	
HPLC grade water	Fisher Scientific	W6-1	
Hydrochloric acid (HCl)	Fisher Scientific	A481-212	
Ice	N/A	N/A	
MEM non-essential amino acids	Corning	25-025-CI	100X solution
Oasis HLB resin	Waters	186007549	Hydrophilic-Lipophilic-Balanced (HLB) Resin with 30µm particle size
Orbitrap Fusion Lumos Tribrid mass spectrometer	Thermo Fisher Scientific	IQLAAEGAAPFADMBHQ	High resolution mass spectrometer
Oro-Flex I polypropylene filter plate	Orochem	OF1100	96-well polypropylene filter plate w/ 10 µm PE frit
Penicillin-Streptomycin	Corning	30-002-CI	100X solution
pH paper	Hydriion	Z111848 (Sigma-Aldrich)	0-13 pH test paper
Pipette gun	Eppendorf	Z666467 (Millipore Sigma)	
Polymicro capillary	Molex	50-110-7740 (Fisher Scientific)	Flexible fused silica capillary tubing with polyimide coating, 75 µm ID x 363 µm OD
Polystyrene 10 mL serological pipets, sterile	Fisher Scientific	1367549	
Propionic anhydride	Sigma-Aldrich	240311-50G	
Refrigerated centrifuge	Thermo Scientific	75-217-420	
Reprosil-Pur resin	MSWIL	R13.AQ.0003	120 Å pore size, C18-AQ phase, 3 µm bead size
Rotator	Clay Adams	25477 (American Laboratory Trading)	Nutator Mixer 1105
Sequencing grade modified trypsin	Promega	V5111	
Sodium butyrate	Thermo Scientific	A11079	
Sodium succinate dibasic	Sigma-Aldrich	14160-100G	
SpeedVac vacuum concentrator (1.5 mL microcentrifuge tubes)	Savant	20249 (American Laboratory Trading)	
SpeedVac vacuum concentrator (96-well)	Thermo Scientific	15308325	Savant SPD1010
Sterile hood	Thermo Scientific	1375	Class II, Type A2
Sulfuric acid (H ₂ SO ₄)	Fisher Scientific	02-004-375	Baker Analyzed ACS reagent
Tissue-culture treated 100 mm x 20 mm dish	Fisher Scientific	08-772-23	
Trichloroacetic acid (TCA)	Thermo Scientific	AC421451000	Resuspend 100% w/v in HPLC grade water
Trifluoroacetic acid (TFA)	Fisher Scientific	PI28904	Sequencing grade
Vacuum manifold 96-well	Millipore	MAVM0960R	
Vortex	Sigma-Aldrich	Z258415	
Water bath	Fisher Scientific	FSGPD10	
Wide bore pipet tips 1000 µL	Axygen	14-222-703 (Fisher Scientific)	
Wide bore pipet tips 200 µL	Axygen	14-222-730 (Fisher Scientific)	