

Materials List for:

Stabilizing Hepatocellular Phenotype Using Optimized Synthetic Surfaces

Baltasar Lucendo-Villarin¹, Kate Cameron¹, Dagmara Szkolnicka¹, Paul Travers¹, Ferdous Khan², Jeffrey G. Walton², John Iredale³, Mark Bradley², David C. Hay¹

¹MRC Centre for Regenerative Medicine, University of Edinburgh

²School of Chemistry, University of Edinburgh

³MRC Centre for Inflammation Research, University of Edinburgh

Correspondence to: David C. Hay at davehay@talktalk.net

URL: <https://www.jove.com/video/51723>

DOI: [doi:10.3791/51723](https://doi.org/10.3791/51723)

Materials

Name	Company	Catalog Number	Comments
Synthesis, preparation, coating and characterization of polymer PU134 coated coverslips			
Shaker	Edmun Bühler	KS-15	
Irradiator	CIS Biointernational	IBL 637	
Spin coater	Specialty Coating System	P-6708	
Scanning Electron Microscope	Philips	XL30CPSEM	
Atomic Force Microscope	DimensionV Nanoscope, VEECO		
p4-GLO CYP3A4	Promega	V8902	
UV bulb	ESCO		
NanoScope analysis software	VEECO		version 1.20
Fluorescence microscope	Olympus	TH45200	Use Volocity 4 Software
Tissue culture plates	Corning, UK	3527	
glass slides	Scientific Laboratory Supplies	MIC3308	
Diethylene glycol	Sigma–Aldrich	93171	
1,6-hexanediol	Sigma–Aldrich	240117	
Neopentyl glycol	Sigma–Aldrich	408255	
Adipic acid	Sigma–Aldrich	9582	
anhydrous <i>N,N</i> -Dimethylformamide	Sigma–Aldrich	227056	
Diethyl ether	Sigma–Aldrich	676845	
titanium (IV) butoxide	Sigma–Aldrich	244112	
1,4-butanediol	Sigma–Aldrich	493732	
Vacuum oven	Thermoscientific		
4,4'-Methylenebis(phenyl isocyanate)	Sigma–Aldrich	101688	
Tetrahydrofurane	Sigma–Aldrich	401757	
Sputter coater	Bal-Tec SCD 050		
Inmunostaining			
Phosphate buffer saline (-MgCl ₂ , -CaCl ₂)	Gibco	10010031	Store at room temperature
PBST, PBS made up with 0.1% TWEEN 20	Scientific Laboratory Supplies Ltd	EC607	
Methanol	Scientific Laboratory Supplies Ltd	CHE5010	
Bovine Serum Albumin	Sigma-Aldrich, UK	A7906	
MOWIOL 488 DAPI	Calbiochem	475904	Made up in Tris HCl and glycerol as per manufacturers instructions

Cell culture and Functional assay			
CYP3A activity pGLO kit	Promega	V8902	
Hepatozyme	Gibco	17705021	
TryLE express	Life Technologies	12604013	