

Materials List for:

Covalent Binding of BMP-2 on Surfaces Using a Self-assembled Monolayer Approach

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Materials

Name	Company	Catalog Number	Comments
N-hydroxysuccinimide	Sigma-Aldrich	130672	
4-(dimethylamino)pyridin	Sigma-Aldrich	522805	
Acetone	AppliChem	A2282	
11-mercaptoundecanoic acid	Sigma-Aldrich	674427	
Dichlormethane	Merck	106050	
N,N'-dicyclohexylcarbodiimide	Sigma-Aldrich	D80002	
Petroleum benzene	Merck		
Glass coverslips	Carl Roth	M 875	
Ethylacetate	AppliChem	A3550	
Methanol	Carl Roth	4627	
N,N-dimethylformamide	Carl Roth	T921	
rhBMP-2	R&D Systems	355-BM	Carrier-free; expressed in <i>E.coli</i>
PBS	PAA	H15-002	
NaCl	Carl Roth	HN00.2	
Poly(dimethyl siloxane) (PDMS)	Dow Corning		
Sylgard 184 silicone elastomer kit	Dow Corning		
Anti-rhBMP-2	Sigma	B9553	
Goat anti-mouse IgG-HRP	Santa Cruz	sc-2005	Secondary antibody
Ampliflu Red assay	Sigma	90101	
Dulbecco's Modified Eagle Medium (DMEM) (1x), liquid	Gibco	41966	High glucose
Fetal Bovine Serum (FBS)	Sigma	F7524	Sterile filtered, cell culture tested
Pen/Strep	Gibco	15140	
Trypsin 0.05% (1x) with EDTA 4Na	Gibco	25300	
Glycine (0.1 M)	Riedel-de Haën	33226	
IGEPAL CA-630 (1%)	Sigma	I8896	Lysis buffer (ALP assay) ¹⁹
Magnesium chloride (MgCl ₂)(1 mM)	Carl Roth	HNO3.2	
Zinc chloride (ZnCl ₂) (1 mM)	Carl Roth	3533.1	
p-nitrophenylphosphate (pNPP)	Sigma	S0942	Phosphatase substrate
Anti-mysin heavy chain (MHC)	Developmental Studies Hybridoma Bank, University of Iowa	MF20	Monoclonal antibody
Alexa Fluor 488 Goat anti-mouse IgG	Invitrogen	A11001	

DAPI	Sigma	D9542	
Equipment			
Ultrasonic bath (Sonorex Super RK 102H), Frequency 35 kHz	BANDELIN electronic GmbH Co. KG		
MED 020 Sputtercoating system	BAL-TEC AG		Coating conditions Cr: 120 mA, 1.3×10^{-2} mbar, 30 sec Au: 60 mA, 5.0×10^{-2} mbar, 45 sec
Tecan Infinite M200 Plate reader	Tecan		