

Materials List for:

Development of Amelogenin-chitosan Hydrogel for *In Vitro* Enamel Regrowth with a Dense Interface

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Materials

Name	Company	Catalog Number	Comments
Human third molar	Ostrow School of Dentistry of the University of Southern California	N/A	The human molars were extracted following the standard procedures for extraction at the Ostrow School of Dentistry of the University of Southern California and handled with the approval of the Institutional Review Board.
Recombinant porcine amelogenin	Expression and purification in lab	N/A	rP172, full-length
Chitosan	Sigma-Aldrich	448877	Medium molecular weight, 75-85% deacetylated
Phosphoric acid	VWR	AA033266	
Acetic acid glacial	VWR	A036289	
Sodium hydroxide	VWR	BDH9292	
Calcium chloride	Sigma-Aldrich	223506	
Dibasic sodium phosphate anhydrous	VWR	BDH0316	
BL21-CodonPlus (DE3)-RP	Agilent Technologies Inc.	230255	
Ammonium sulfate	VWR	BDH8001	
Trifluoroacetic acid	VWR	AAAL06374	
Acetonitrile	VWR	BDH1103	
Magnesium chloride	VWR	BDH0244	
Potassium dihydrogen phosphate	VWR	BDH9268	
Potassium chloride	VWR	BDH0258	
Ammonium chloride	VWR	AAAA15000	
HEPES (4-(2-Hydroxyethyl)piperazine-1-ethane-sulfonic acid)	VWR	AAA14777	
Sodium fluoride	VWR	AA11561	
Tris-buffered saline	Bio-Rad	170-6435	10× TBS
Bovine serum albumin	EMD Millipore	12659	CalBioChem, Albumin, Bovine Serum, Fraction V, Low Heavy Metals
Triton X-100	EMD Millipore	TX1568-1	
Chicken Anti-Amelogenin	N/A	N/A	A gift from Prof. Malcolm Snead, University of Southern California
Bovine Anti-Chicken IgY-FITC	Santa Cruz Biotechnology	Sc-2700	
High Performance Liquid Chromatography System	Agilent Technologies Inc.	Varian Prostar 210	
C4 column	Phenomenex	Jupiter 5µ 300A	

Scanning Electron Microscopy	JEOL	JSM-7001	
FIB-SEM	JEOL	JIB-4500	
Transmission Electron Microscopy	JEOL	JEM-2100F	
Digital low speed diamond saw	MTI Corporation	SYJ-150	
Fluorescence microscopy	Leica	DMI3000 B	
Ultrasonic cleaner	Branson	2510	42 kHz, 100 W
Nano-indenter	Agilent Technologies Inc.	MTS XP	