

Materials List for:

Visualizing Angiogenesis by Multiphoton Microscopy *In Vivo* in Genetically Modified 3D-PLGA/nHAp Scaffold for Calvarial Critical Bone Defect Repair

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URL: <https://www.jove.com/video/55381>

DOI: [doi:10.3791/55381](https://doi.org/10.3791/55381)

Materials

Name	Company	Catalog Number	Comments
Poly(D,L-lactide-co-glycolide) (PLGA)	Sigma	P1941	L/G ratio 75:25, MW 66000-107000
Hydroxyapatite nanoparticles	Sigma	702153	Average diameter < 200 nm
Chloroquine diphosphate salt	Sigma	C6628	
FITC-conjugated 250-kD dextran	Sigma	FD250S	
1,4-dioxane	lingfeng, Shanghai		0.45 micron
Stericup filters	Merck Millipore Corporation	SLHV033RB	
PDGF-BB Cdna	Sino Biological, Inc	MZ50801-G	
Anti-PDGF-BB mouse polyclonal antibody	BioVision, Inc	5489-30T	
PDGF-BB recombinant protein		4489-50	
Calcium-phosphate transfection solution	Promega Corporation	E1200	
L-DMEM	Hyclone	SH30021.01	
DPBS	Hyclone	SH30028.01	
Penicillin-Streptomycin, Liquid	Thermo Fisher Scientific	15140122	
FBS	Thermo Fisher Scientific	10099-141	
Transwell	Corning	3422	
Male BALB/c mice	Guangdong Medical Laboratory Animal Center		
sodium pentobarbital	Merck	1063180500	
multiphoton microscopy			A homemade in Shenzhen Institutes of Advanced Technology to detect two-photon excited fluorescence (TPEF) and second harmonic generation signal (SHG).
isoflurane	Keyuan, Shandong	401750169	
TRIzol reagent	Invitrogen	15596018	
PrimeScript RT Master Mix (Perfect Real Time)	Takara	RR420B	
SYBR Premix Ex Taq (Tli RNaseH Plus)	Takara	RR036B	
Hematoxylin and eosin	Beyotime	C0105	
Paraffin	Leica	RM2235	
Ultracentrifuge OPTIMA L-100XP	Beckman Coulter	L-100XP	

Low-temperature printer	Tsinghua university		A homemade in Tsinghua university
LightCycler 480 instrument	Roche	5815916001	
microCT	Bruker	1176	
commercial software	Bruker		
Buprenorphine			