

Materials List for:

Viral Nanoparticles for *In vivo* Tumor Imaging

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Materials

Name	Company	Catalog Number	Comments
VNP production			
Indoor plant chamber	Percival Scientific	E-41L2	
<i>V. unguiculata</i> seeds (California black-eye no. 5)	Burpee	51771A	
<i>N. benthamiana</i> seeds			<i>N. benthamiana</i> seeds were a gift from Salk Institute. Seeds are produced through plant propagation.
Carborundum	Fisher	C192-500	
Pro-mix BX potting soil	Premier Horticulture	713400	
Jack's Professional 20-10-20 Peat-Lite Fertilizer	JR Peters	77860	
Equipment			
50.2 Ti rotor	Beckman	337901	
SW 32 Ti rotor	Beckman	369694	
Optima L-90K ultracentrifuge	Beckman	365672	
SLA-3000 rotor	Thermo Scientific	07149	
SS-34 rotor	Thermo Scientific	28020	
Sorvall RC-6 Plus centrifuge	Thermo Scientific	46910	
Polypropylene bottle	Beckman	355607	For SLA-3000 rotor
Polycarbonate bottle	Beckman	357002	For SS-34 rotor
Ultra-Clear tube	Beckman	344058	For sucrose gradient and SW 32 Ti rotor
Polycarbonate bottle	Beckman	355618	For pelleting and 50.2 Ti rotor
NanoDrop spectrophotometer	Thermo Scientific	NanoDrop2000c	
PowerEase 500 pre-cast gel system	Invitrogen	E18675EU	
Superose 6 10/300 GL (24 ml) size-exclusion column	GE Healthcare	17-5172-01	
ÅKTA Explorer 100 Chromatograph	GE Healthcare	28-4062-66	
Allegra X-12R	Beckman	392302	Benchtop centrifuge
Cryostat	Leica	CM1850	
Maestro 2	Caliper Life Sciences		<i>In vivo</i> imaging system
Tissue-Tearor	Biospec Products	985370-395	
Microplate reader	Tecan	Infinite-200	
Transmission electron microscope	ZEISS	Libra 200FE	

FluoView laser scanning confocal microscope	Olympus	FV1000	
Chemicals and Reagents			
3-ethynylaniline	Sigma Aldrich	498289-5G	
384 well black plate	BD Biosciences	353285	
4-12% Bis-Tris NuPAGE SDS gel	Invitrogen	NP0321BOX	
4X LDS sample buffer	Invitrogen	NP0008	
Acetic Acid	Fisher	A385-500	
Acetonitrile	Sigma Aldrich	271004-1L	
Alexa Fluor 647 azide	Invitrogen	A10277	
Alexa Fluor 647 carboxylic acid, succinimidyl ester	Invitrogen	A20006	
Amicon Ultra-0.5 ml Centrifugal Filters	Millipore	UFC501096	10 kDa cut-off
Aminoguanidine hydrochloride	Acros Organics	36891-0250	
Boric acid	Fisher	A74-500	
Coomassie Brilliant Blue R-250	Fisher	BP101-25	
CsCl	Acros Organics	42285-1000	
DAPI	MP Biomedicals	157574	
Dimethyl sulfoxide	Fisher	BP231-100	
Filter paper	Fisher	09-801K	P5 grade
FITC anti-mouse CD31	BioLegend	102406	
Goat serum	Invitrogen	16210-064	
KCl	Fisher	BP366-500	
L-ascorbic acid sodium salt	Acros Organics	35268-0050	
Methanol	Fisher	A412P-4	
MgCl ₂	Fisher	BP214-500	
Microscope slides	Fisher	12-544-3	
Microscope cover glass	VWR	48366-277	
MOPS buffer	Invitrogen	NP0001	
mPEG-mal	Nanocs	PG1-ML-2k	MW 2000
mPEG-N3	Nanocs	PG1-AZ-5k	MW 5000
mPEG-NHS	Nanocs	PG1-SC-5k	MW 5000
NaCl	Fisher	BP358-212	
Oregon Green 488 succinimidyl ester *6-isomer*	Invitrogen	O-6149	
p-toluenesulfonic acid monohydrate	Acros Organics	13902-0050	
Permunt	Fisher	SP15-100	
Potassium phosphate dibasic	Fisher	BP363-1	
Potassium phosphate monobasic	Fisher	BP362-1	
Sodium acetate	Fisher	BP333-500	
Sodium nitrite	Acros Organics	42435-0050	
Sodium sulfite	Amresco	0628-500G	
Sucrose	Fisher	S6-500	
TEM grid	Ted Pella	FCF-400Cu	
Tris base	Fisher	BP152-500	

Triton X-100	EMD Chemicals	TX1568-1	
β-mercapt-ethanol	Fisher	O3446I-100	
Tissue Culture			
Fetal bovine serum	Invitrogen	12483-020	
Hemocytometer	Fisher	0267110	
HT-29 cells	ATCC	HTB-38	
L-glutamine	Invitrogen	25030-080	
PBS	Cellgro	21-040-CV	
Penicillin-streptomycin	Invitrogen	10378-016	
RPMI-1640	Invitrogen	31800-089	
Tissue culture flasks	Corning	431080	175 cm ²
Trypan Blue	Thermo Scientific	SV30084.01	
Trypsin, 0.05% (1X) with EDTA 4Na, liquid	Invitrogen	25300-054	
Animal Studies			
18% Protein Rodent Diet	Harlan Teklad	Teklad Global 2018S	Alfalfa free diet
Insulin syringe	BD Biosciences	329410	28 gauge
Isoflurane	Baxter	AHN3637	
Matrigel Matrix basement membrane	BD Biosciences	356234	
NCR nu/nu mice			CWRU School of Medicine Athymic Animal and Xenograft Core Facility
Sterile syringe	BD Biosciences	305196	18 1/2 gauge
Tissue-Tek CRYO-OCT Compound	Andwin Scientific	4583	