Materials List for:

Gene-therapy Inspired Polycation Coating for Protection of DNA Origami Nanostructures

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Materials

Name	Company	Catalog Number	Comments
10× DNase I reaction buffer	New England Biolab (NEB)	B0303	
ABTS (2′-Azino-bis(3-ethylbenzothiazoline-6-sulfonic acid) diammonium salt)	Alfa Aesar	J65535	
Amicon ultracentrifugation columns	Merck Millipore	UCF500308, UCF510024	
Chitosan oligosaccharide lactate (M_n ~ 4000-6000,> 90% deacetylated, 60%. composition oligosaccharide	Sigma-Aldrich	523682	
Design-specific staple strands	Integrate DNA Technologies (IDT)		
Dextran sulfate sodium salt (Mr ~ 4 kDa)	Sigma-Aldrich	75027	
Dextran sulfate sodium salt (Mr ~ 40 kDa)	Sigma-Aldrich	42867	
DNA gel loading dye (6×)	ThermoFischer sceintific	R0611	
DNase I (RNase free)	New England Biolab (NEB)	M0303	
Ethylene glycol-bis(2-aminoethylether)-N,N,N′,N′-tetraacetic acid (EGTA)	Sigma-Aldrich	E3889	
Ethylenediaminetetraacetic acid (EDTA) BioUltra, anhydrous, ≥99% (titration)	Sigma-Aldrich	EDS	
Freeze'N Squeeze DNA Gel Extraction Spin Columns	Biorad	7326165	
Hemin	Sigma-Aldrich	H9039	
HEPES	Sigma-Aldrich	H3375	
Hydrogen peroixde slution (32 wt %)	Sigma-Aldrich	216763	
LPEI-25 kDa	Polysciences, Inc	23966-1	
NuPAGE Sample Reducing Agent (500 mM dithiothreitol (DTT))	ThermoFischer sceintific	NP0004	
Polyethylene glycol (PEG, M_W ~ 8000 Da)	Carl Roth	O263.1	
Polyethylenimine, linear, average Mn 10,000, PDI ≤1.2	Sigma-Aldrich	765090	
Polyethylenimine, linear, average Mn 5,000, PDI ≤1.3	Sigma-Aldrich	764582	
Proteinase K solution (20 mg/ml)	ThermoFischer sceintific	AM2548	
Streptavidin-conjugated HRP	ThermoFischer sceintific	N100	

SYBER safe DNA gel stain	ThermoFischer sceintific	S33102	

