

Materials List for:

Facile and Efficient Preparation of Tri-component Fluorescent Glycopolymers via RAFT-controlled Polymerization

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Materials

Name	Company	Catalog Number	Comments
Reagent			
Lactobionic acid	Sigma-Aldrich	153516	
D-Gluconolactone	Sigma-Aldrich	G2164	
N-(2-hydroxyethyl) acrylamide (HEAA)	Sigma-Aldrich	697931	
Orange II sodium salt	Sigma-Aldrich	O8126	
Hydroquinone monomethyl ether (MEHQ)	Sigma-Aldrich	54050	Polymerization inhibitor
N-(2-aminoethyl) methacrylamide hydrochloride (AEMA)	Polysciences, Inc	24833-5	
Triethylamine	Fisher Scientific	BP-616	
Anion-exchange resin IRN-78 hydroxide-form, 80 mesh	Sigma-Aldrich	10343-U	
Cation-exchange resin 50Wx8, 200 mesh	Sigma-Aldrich	217514	
Aluminum oxide, ~150 mesh	Sigma-Aldrich	A1522	Type WN-6, Neutral, Activity Grade Super I
Ninhydrin	Sigma-Aldrich	N4876	An ethanol solution of 0.2% ninhydrin was used in the test
4-Cyano-4-(phenylcarbonothioylthio)pentanoic acid	Sigma-Aldrich	722995	RAFT agent
4,4'-Azobis(4-cyanovaleric acid)	Sigma-Aldrich	11588	Polymerization initiator
Carboxyfluorescein succinimidyl ester	Life Technologies	C1157	
Erythrina Cristagalli lectin coated agarose bead	Vector Laboratories	AL-1143	
Solvent			
dH2O			Produced by Barnstead water purification system, 18 megOhm-cm
Isopropanol	Fisher Scientific	A461-4	ACS grade or better
Methanol	Fisher Scientific	A454-4	ACS grade or better
Absolute ethanol	Fisher Scientific	BP2818-100	ACS grade or better
Dimethylformamide	Sigma-Aldrich	22705	ACS grade or better
Acetone	Fisher Scientific	A929-4	ACS grade or better

Equipment			
Dialysis membrane (MWCO: 3,500)	Spectrum Labs	132720	
Polyethylene glycol analytical standard standard	Sigma-Aldrich	O2393	
Schlenk tube, 1 ml	Quark Glass		Customized
TSK-GEL G4000 PWxl	Tosoh Bioscience	8022	Used for GPC analysis of the glycopolymers
Empower 3 with GPC/SEC package	Waters Corporation		
Waters Alliance HPLC system	Waters Corporation		Equipped with refractive index detector (Waters 2414) and fluorescence detector (Waters 2475)
Avance III 800 MHz NMR Spectrometer	Bruker Corporation		
BX43 fluorescence microscope	Olympus Corporation		Used with FITC filter in the glycopolymer binding test
Rotavap / Rotoevaporator	Heidolph		
Fritted disc funnel	Fisher Scientific	10-310-109	
Lyophilizer	Labconco		
Immunofluorescence microscope slide	Polysciences	18357-1	
Revco Ultima Plus -80 °C Freezer	Thermo Scientific		
Plastic Vacuum Bag and Hand Pump	Ziploc		
Vacuum Pump, Direct Drive, Maxima C Plus	Fisher Scientific		
Vacuum Gauge	Sargent-Welch		