

ELECTRONIC SUPPORTING INFORMATION

Manipulation of Cytokine Secretion in Human Dendritic Cells using Glycopolymers with Picomolar Affinity for DC-SIGN

Daniel A. Mitchell^{1,2*}, Qiang Zhang³, Lenny Voorhaar³, David M. Haddleton³,
Shan Herath⁴, Anne S. Gleinich¹, Harpal S. Randeva^{1,2}, Max Crispin⁵, Hendrik
Lehnert⁶, Russell Wallis⁷, Steven Patterson⁴ & C. Remzi Becer^{8*}

¹ Clinical Sciences Research Laboratories, University of Warwick, Coventry CV2 2DX, UK

² University Hospital Coventry & Warwickshire NHS Trust, Coventry CV2 2DX, UK

³ Department of Chemistry, University of Warwick, Coventry CV4 7AL, UK

⁴ Chelsea & Westminster Hospital, Imperial College School of Medicine, London SW10 9NH,
UK

⁵ Glycobiology Institute, University of Oxford, Oxford OX1 3QU, UK

⁶ Universität zu Lübeck, 23562 Lübeck, Germany

⁷ Department of Biochemistry, University of Leicester, Leicester LE1 9HN, UK

⁸ Polymer Chemistry Laboratory, School of Engineering and Materials Science, Queen Mary
University, London E1 4NS, UK

Corresponding authors: d.mitchell@warwick.ac.uk or r.becer@qmul.ac.uk

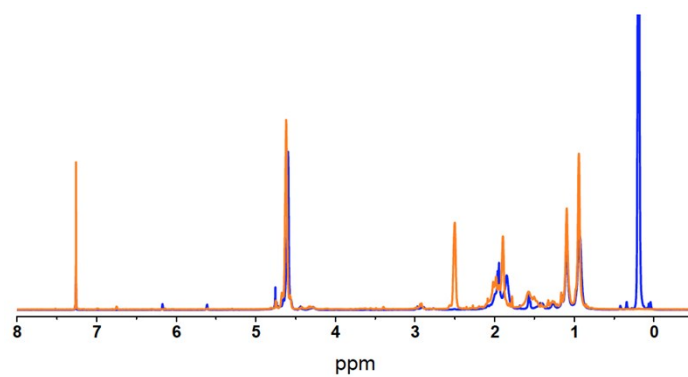


Figure S1. ^1H NMR of linear pTMSMA before (blue line) and after deprotection (orange line) measured in CDCl_3 .

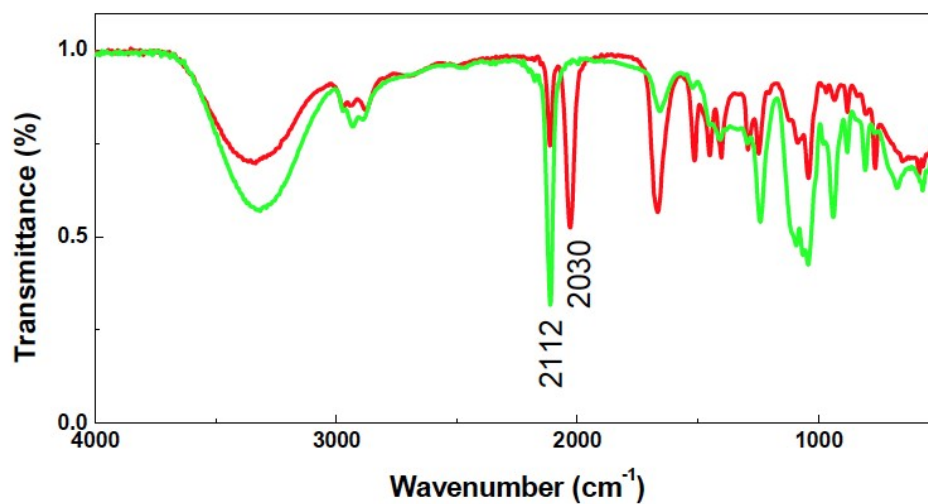


Figure S2. FT-IR spectra of mannose azide after filtering out the sodium azide (red line) and after purification on an Amberlite column (green line).

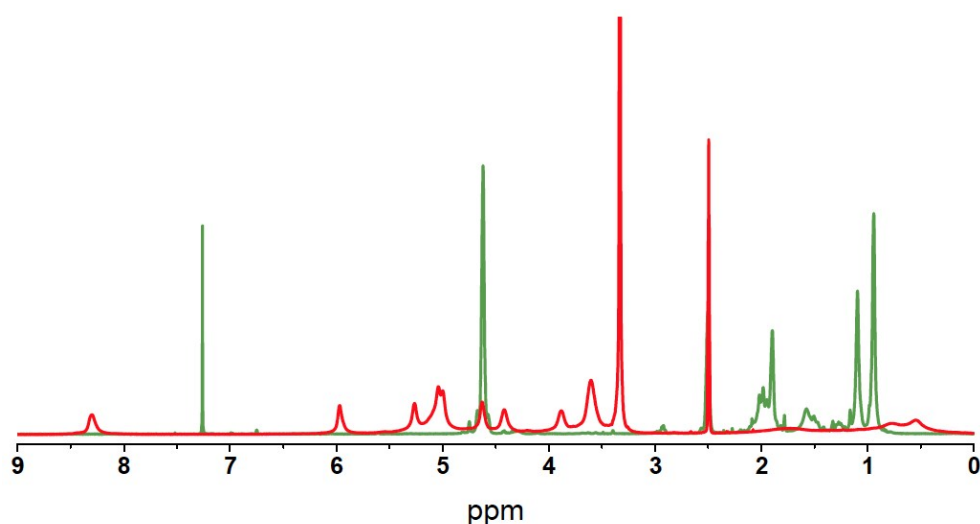


Figure S3. ^1H NMR spectra of p(propargyl MA) in CDCl_3 (green line) and mannose azide clicked polymer in DMSO-d_6 (red line).

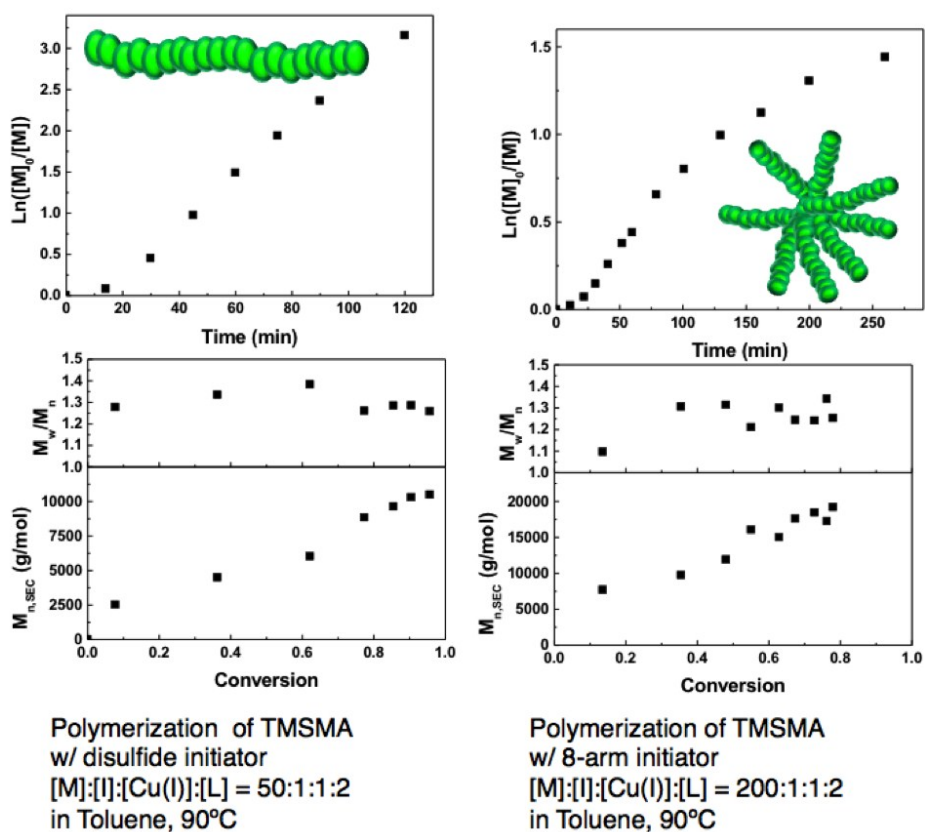


Figure S4. Atom transfer radical polymerization kinetics of TMSMA homopolymer, DEGMA-TMSMA random copolymer and TMSMA 8-arm star shaped homopolymer.

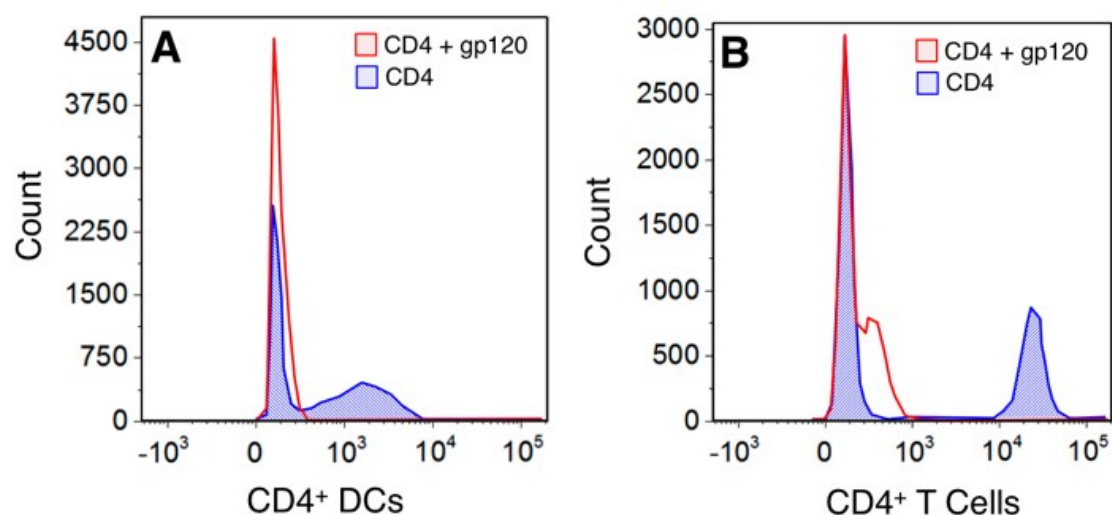


Figure S5. Competition binding of gp120 against CD4. Dendritic cells and lymphocytes were first incubated with an unlabeled gp120 and then stained with an anti-CD4 antibody. Cells were analyzed by flow cytometry and the data represents one of 2 donors.