

Multi-arm carriers composed of antioxidant lignin core and poly(glycidyl methacrylate-co-poly(ethylene glycol) methacrylate) derivative arms for highly efficient gene delivery

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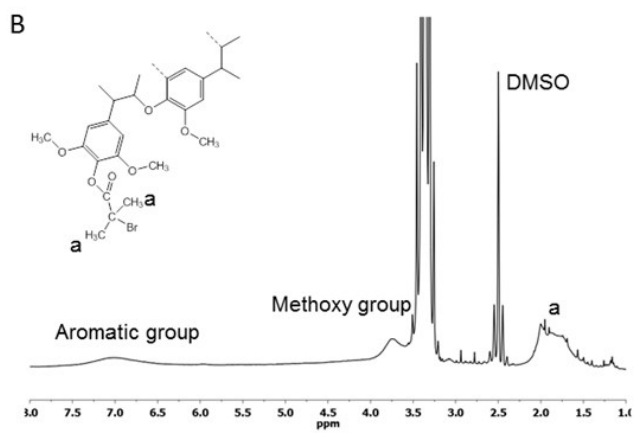
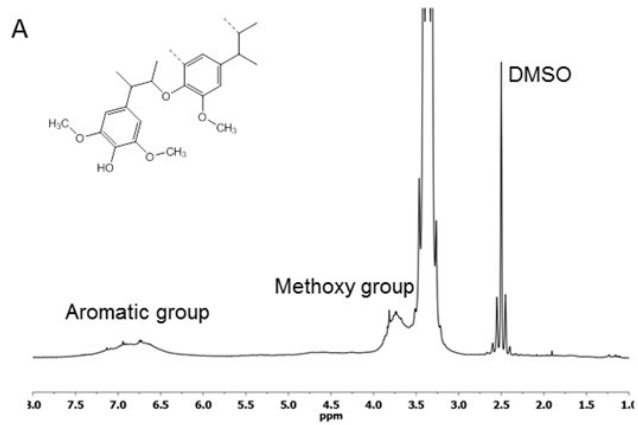


Figure S1. ^1H NMR (400 MHz) spectra of (A) lignin and (B) lignin-Br in $\text{DMSO-}d_6$.

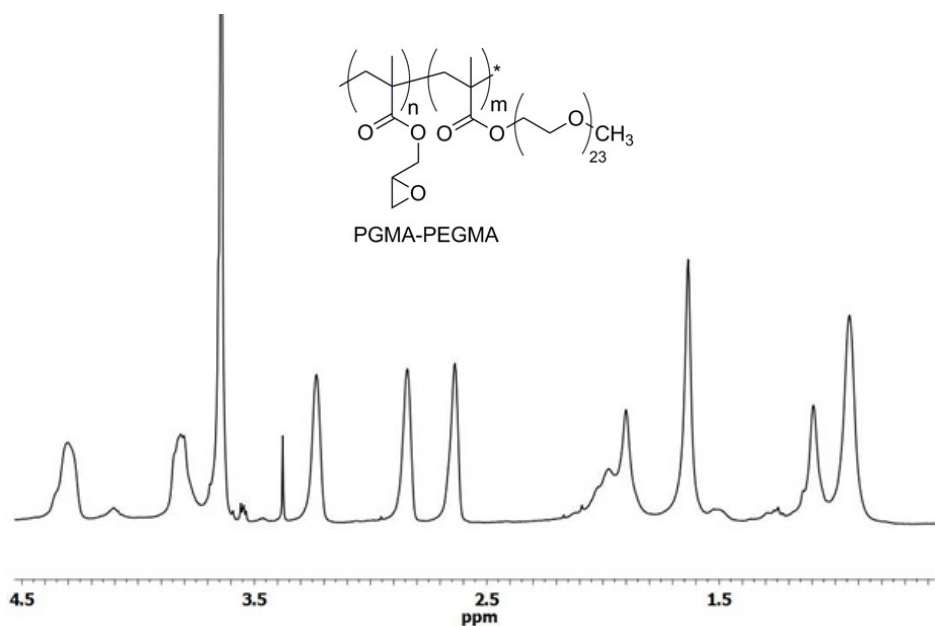


Figure S2. ^1H NMR (400 MHz) spectra of PGMA-PEGMA in chloroform *d*.

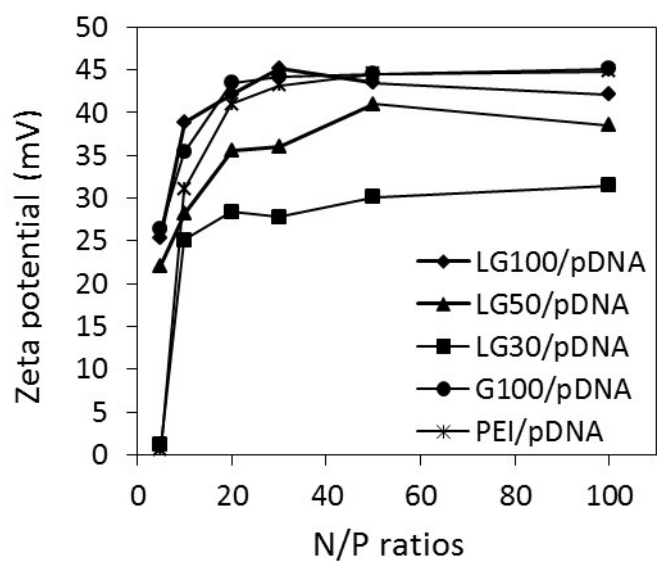


Figure S3. Zeta potential of the complexes between the cationic polymers (LG100, LG50, LG30, G100, and PEI) and pDNA at various N/P ratios.