



Figure S1. NMR spectra of UCP. Spectra were performed on an Agilent DD2 500M NMR spectrometer. Chemical shifts are referenced to internal acetone at 2.225 ppm for ^1H and 31.07 ppm for ^{13}C . (A) ^1H NMR spectrum; (B) ^{13}C NMR spectrum; (C) ^1H - ^1H COSY spectrum; (D) ^1H - ^{13}C HSQC spectrum; and (E) ^1H - ^1H NOESY spectrum. A-G correspond to $\rightarrow 2,4$ - α -L-Rhap-(1 \rightarrow , $\rightarrow 4$)- α -L-Rhap(3SO₄)-(1 \rightarrow , $\rightarrow 4$)- β -D-Xylp-(2SO₄)-(1 \rightarrow , $\rightarrow 4$)- β -L-Rhap(3SO₄)-(1 \rightarrow , $\rightarrow 4$)- β -L-Rhap-(1 \rightarrow , $\rightarrow 4$)- β -D-GlcAp(1 \rightarrow and $\rightarrow 4$)- β -D-Xylp-(1 \rightarrow , respectively).