

Supplementary content for

Synthesis of Glycopolymers at Various Pendant Spacer Lengths of Glucose Moiety and Their Effects on Adhesion, Viability and Proliferation of Osteoblast cells

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Fig. S12 Optical microscopy images of cells at (a) 1 μ M, (b) 10 μ M and (c) 100 μ M concentrations of **GP1**, **GP2** and **GP3**.

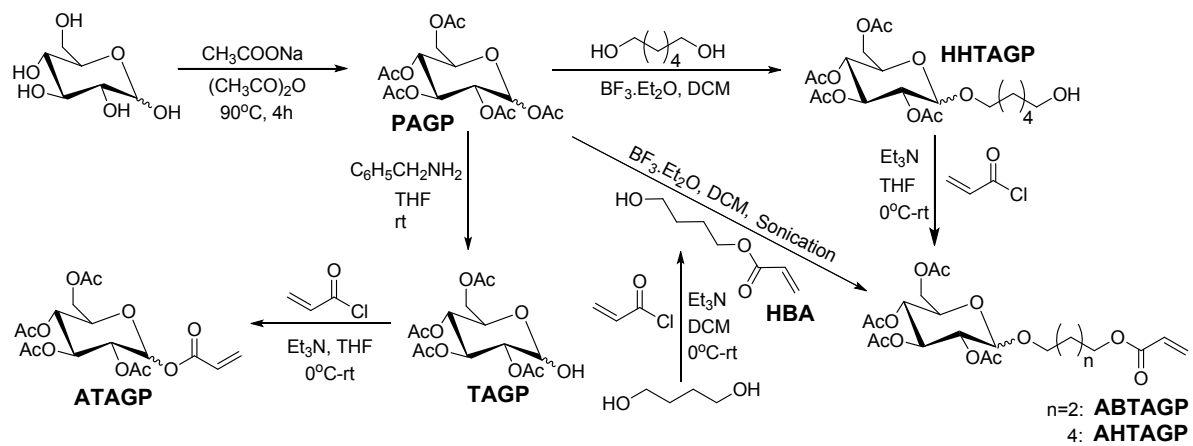
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Fig. S16 Microscopy image of actin staining for assessing the expression of cytoskeleton protein on tissue culture plastic surface as a positive control.

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Scheme S1 Schematic representation of the syntheses of glycoacrylates.

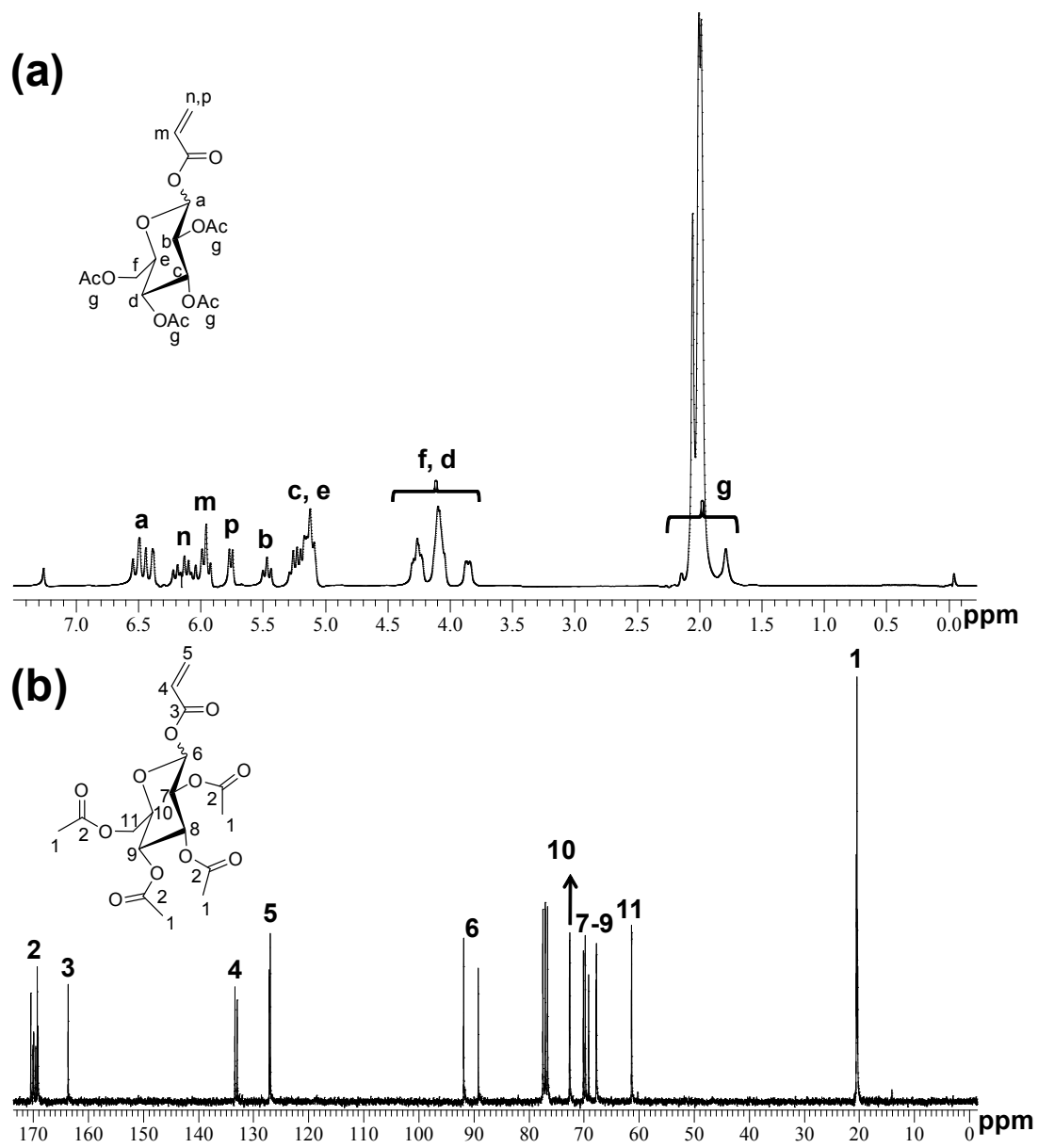


Fig. S1 NMR spectra for the ATAGP (a) ^1H and (b) ^{13}C .

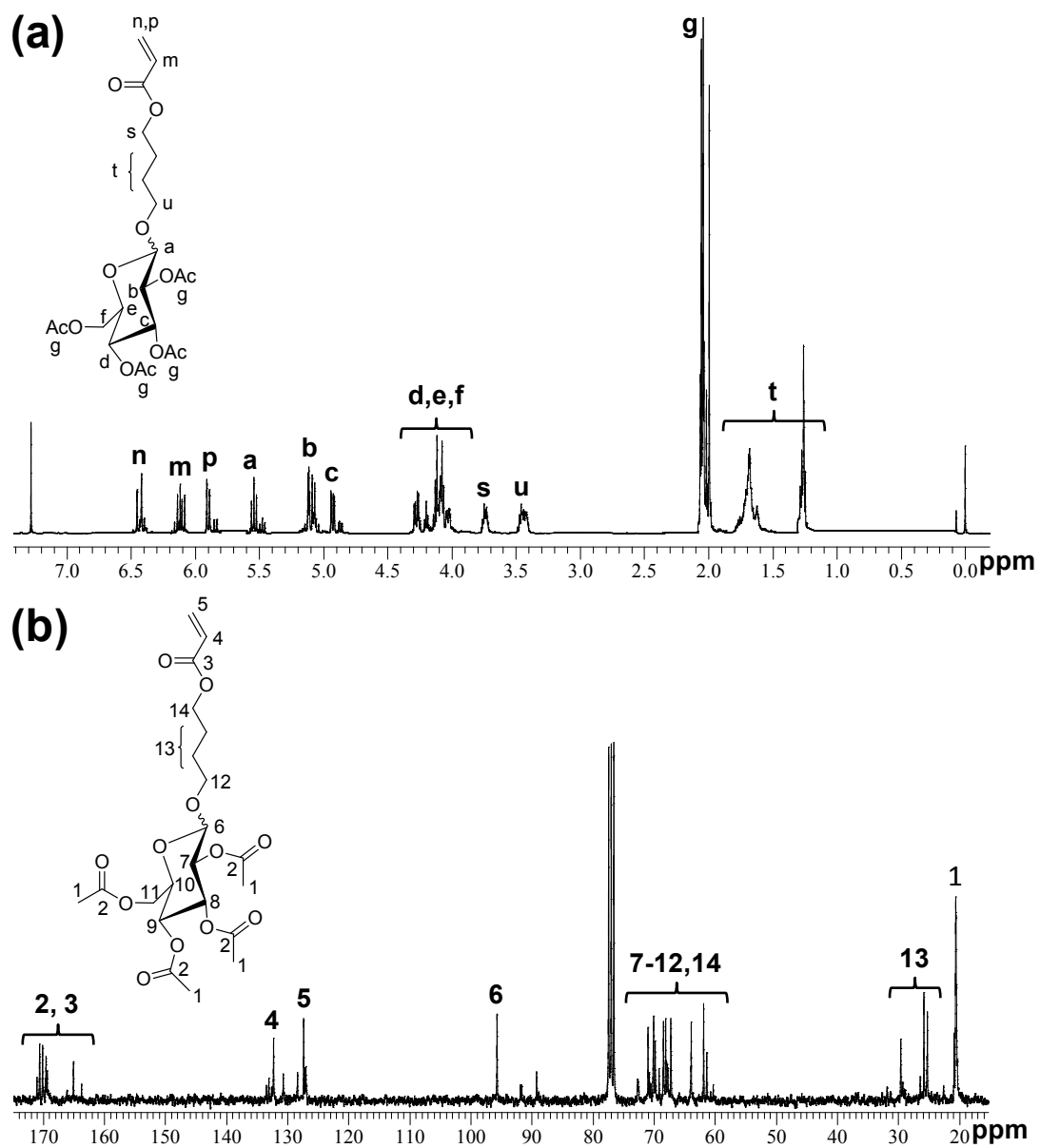


Fig. S2 NMR spectra for the ABTAGP (a) ^1H and (b) ^{13}C .

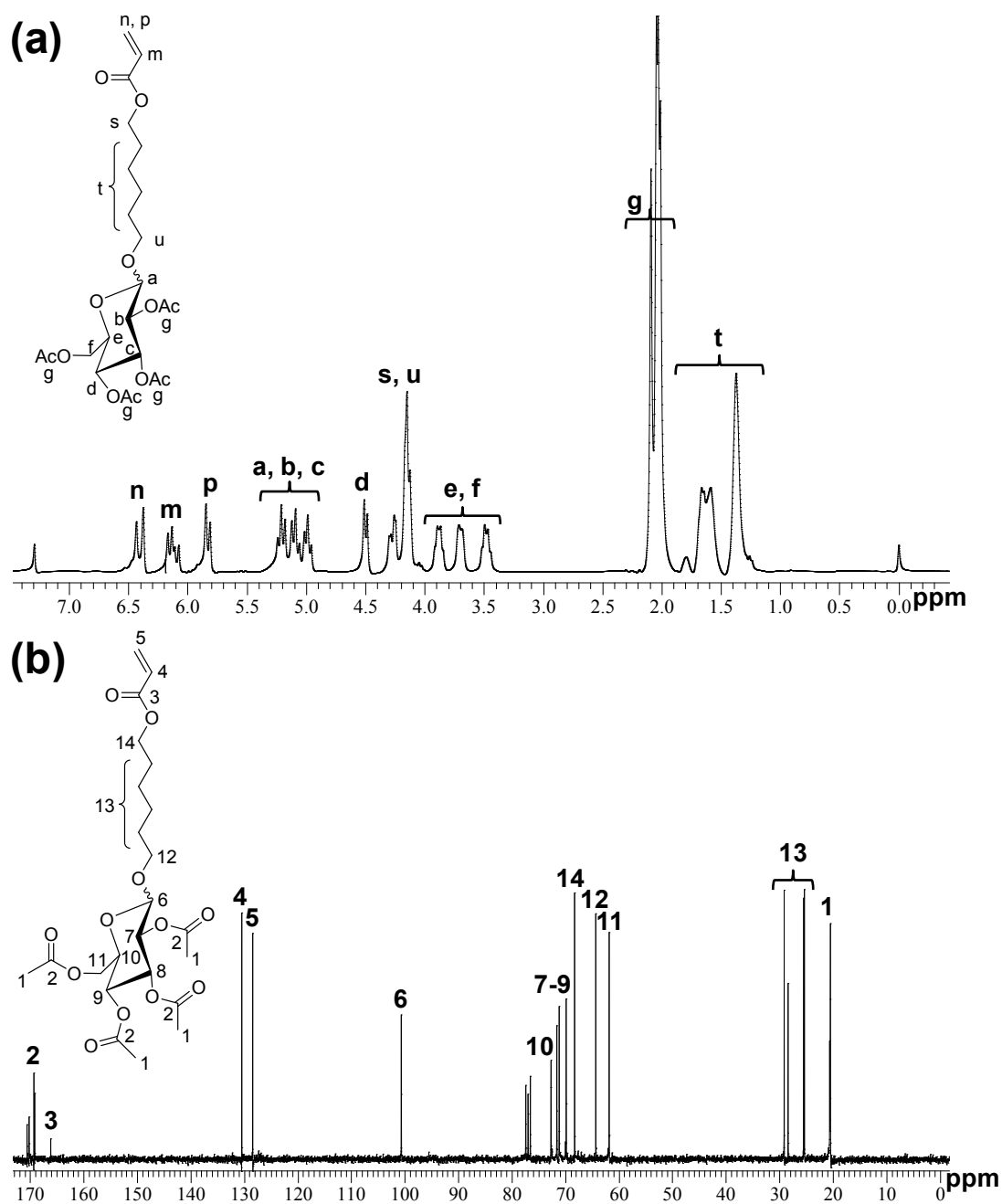


Fig. S3 NMR spectra for the AHTAGP (a) ^1H and (b) ^{13}C .

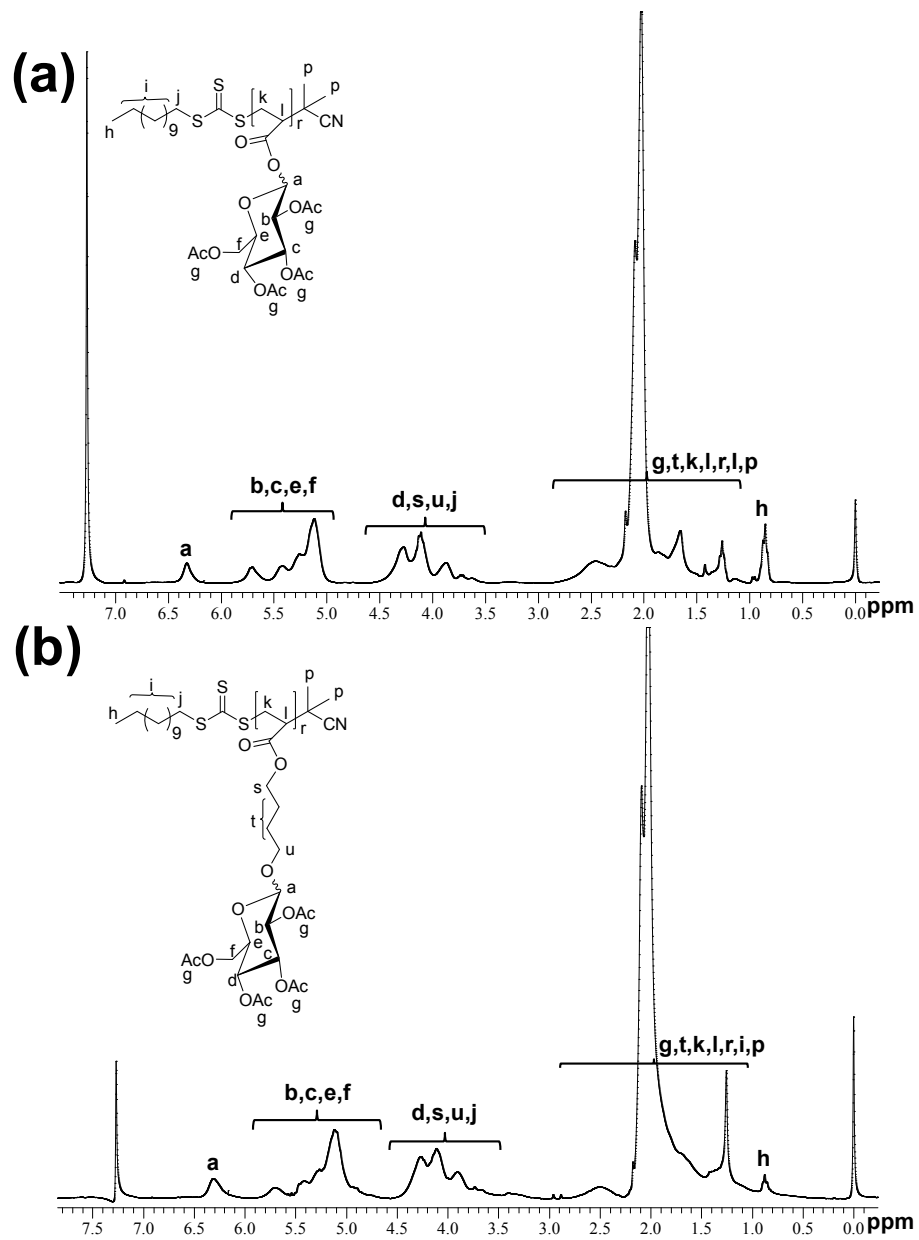


Fig. S4 ¹H NMR spectra of (a) the poly(ATAGP) and (b) the poly(ABTAGP).

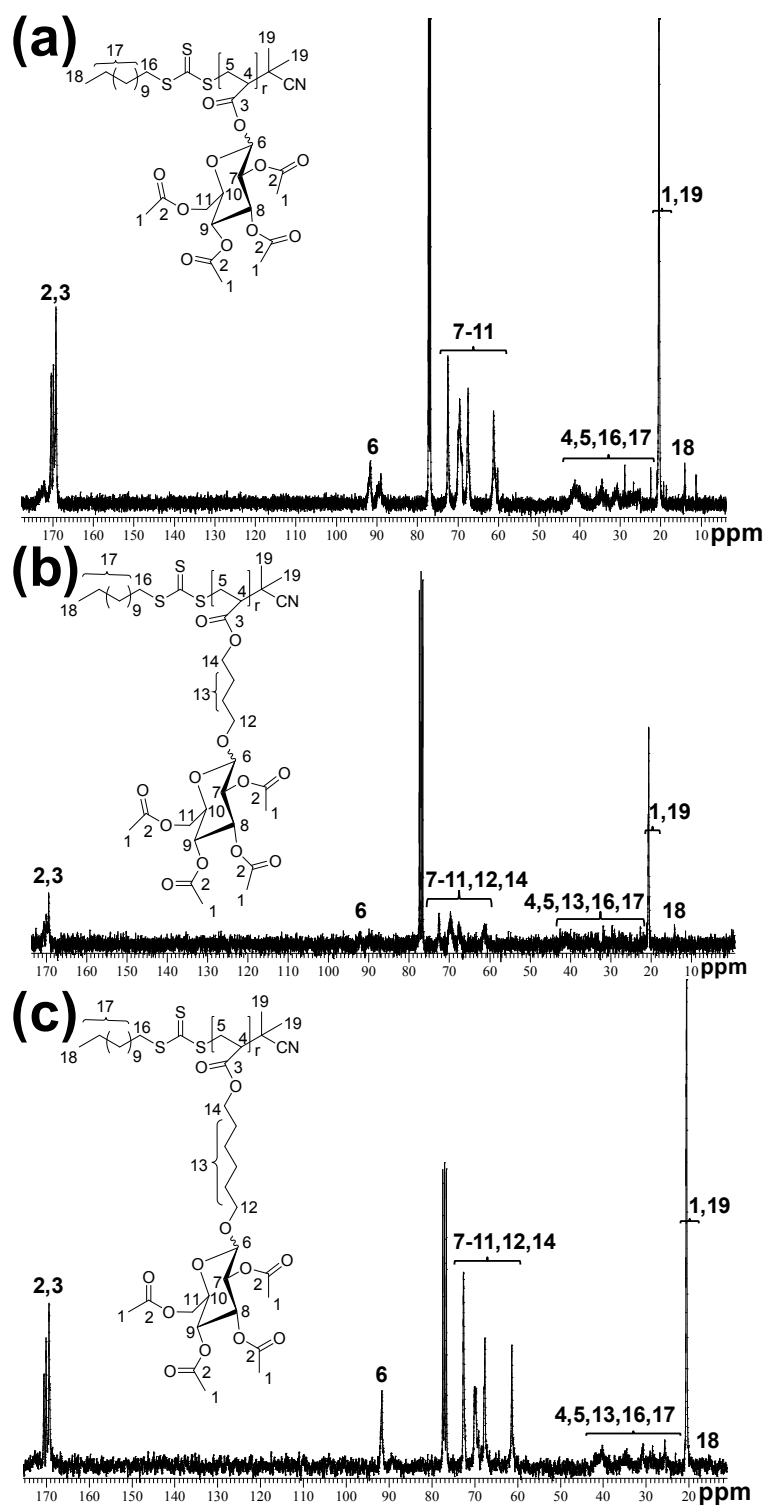


Fig. S5 ¹³C NMR spectra of (a) the poly(ATAGP), (b) the poly(ABTAGP) and (c) the poly(AHTAGP).

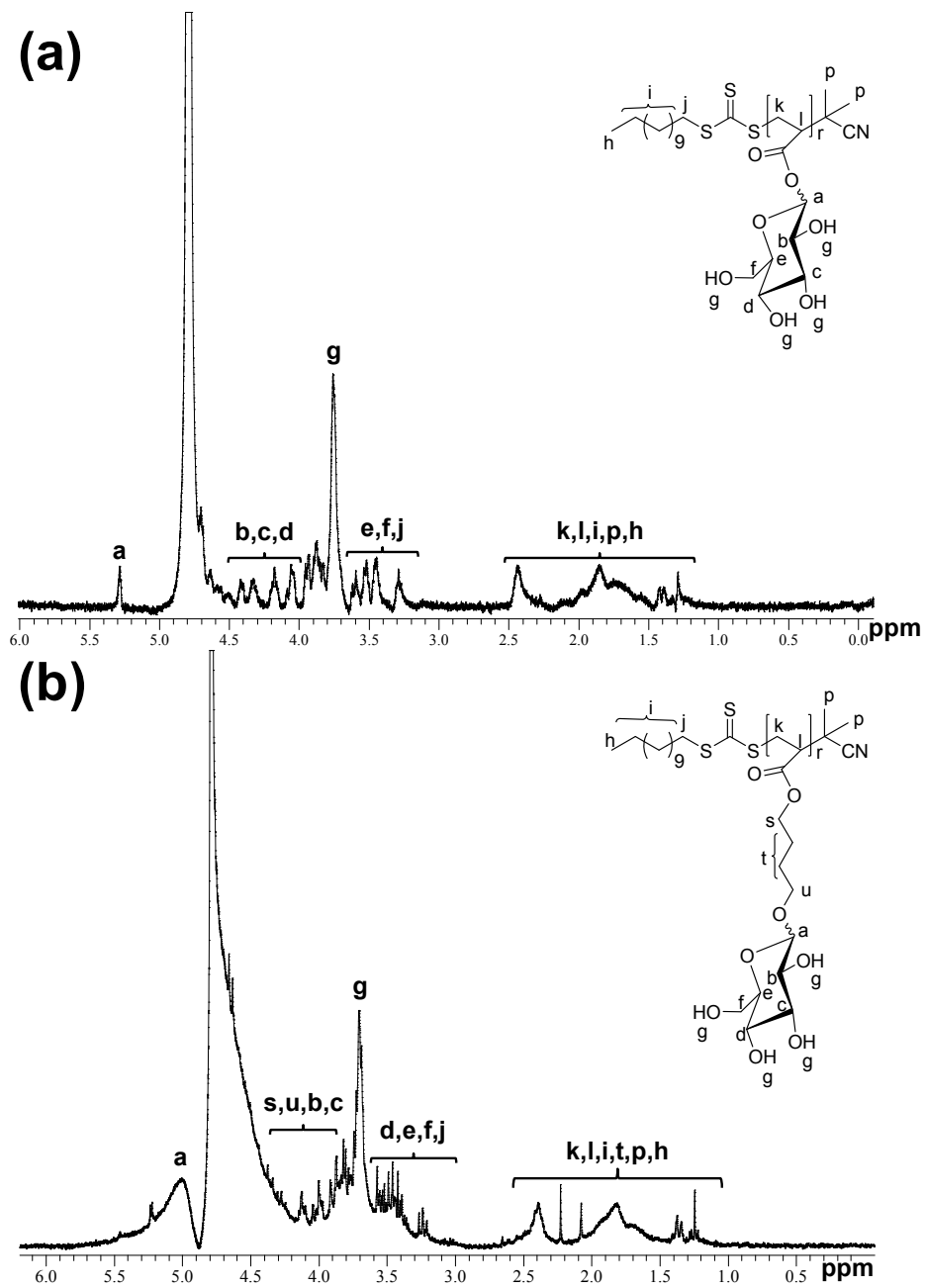


Fig. S6 ^1H NMR spectra of (a) the **GP1** and (b) the **GP2**.

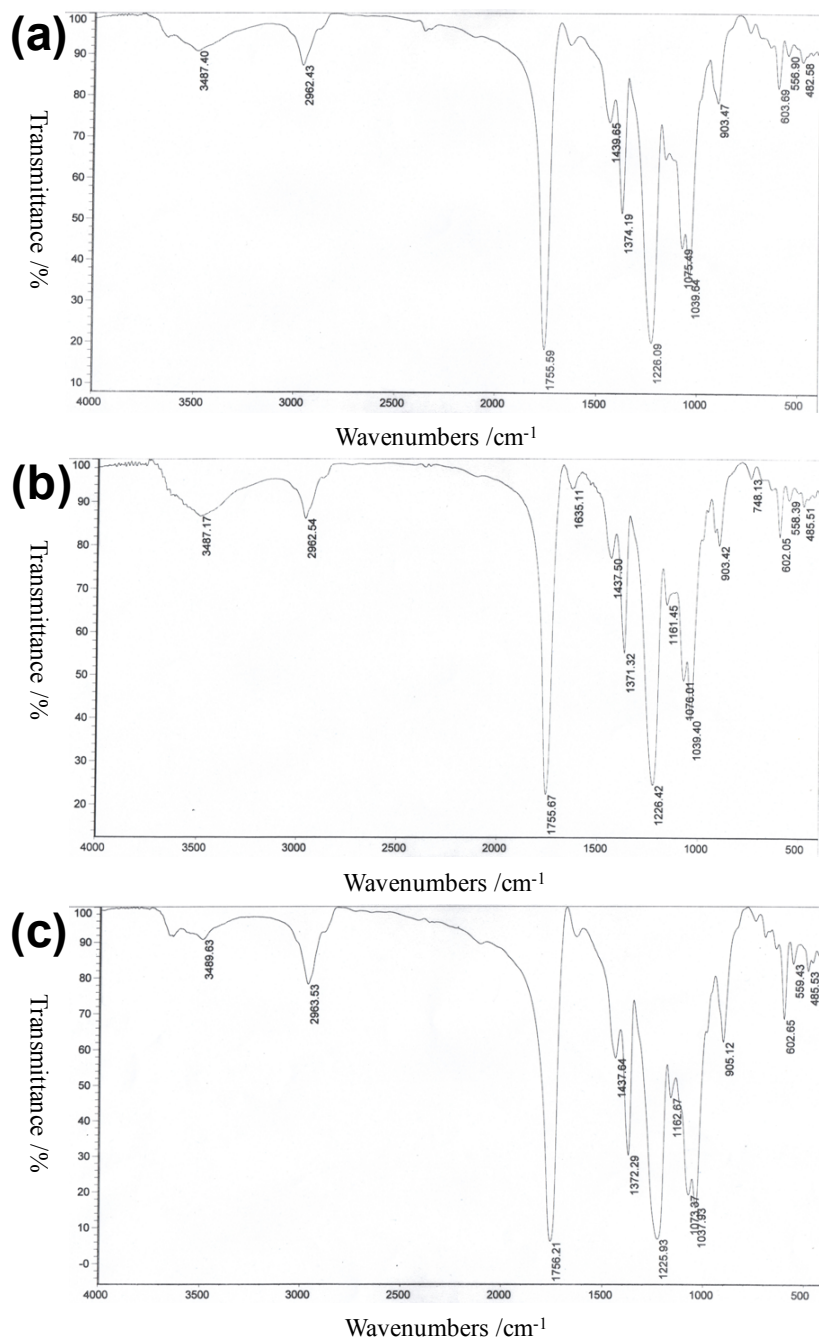


Fig. S7 FT-IR spectra of (a) the poly(ATAGP), (b) the poly(ABTAGP) and (c) the poly(AHTAGP).

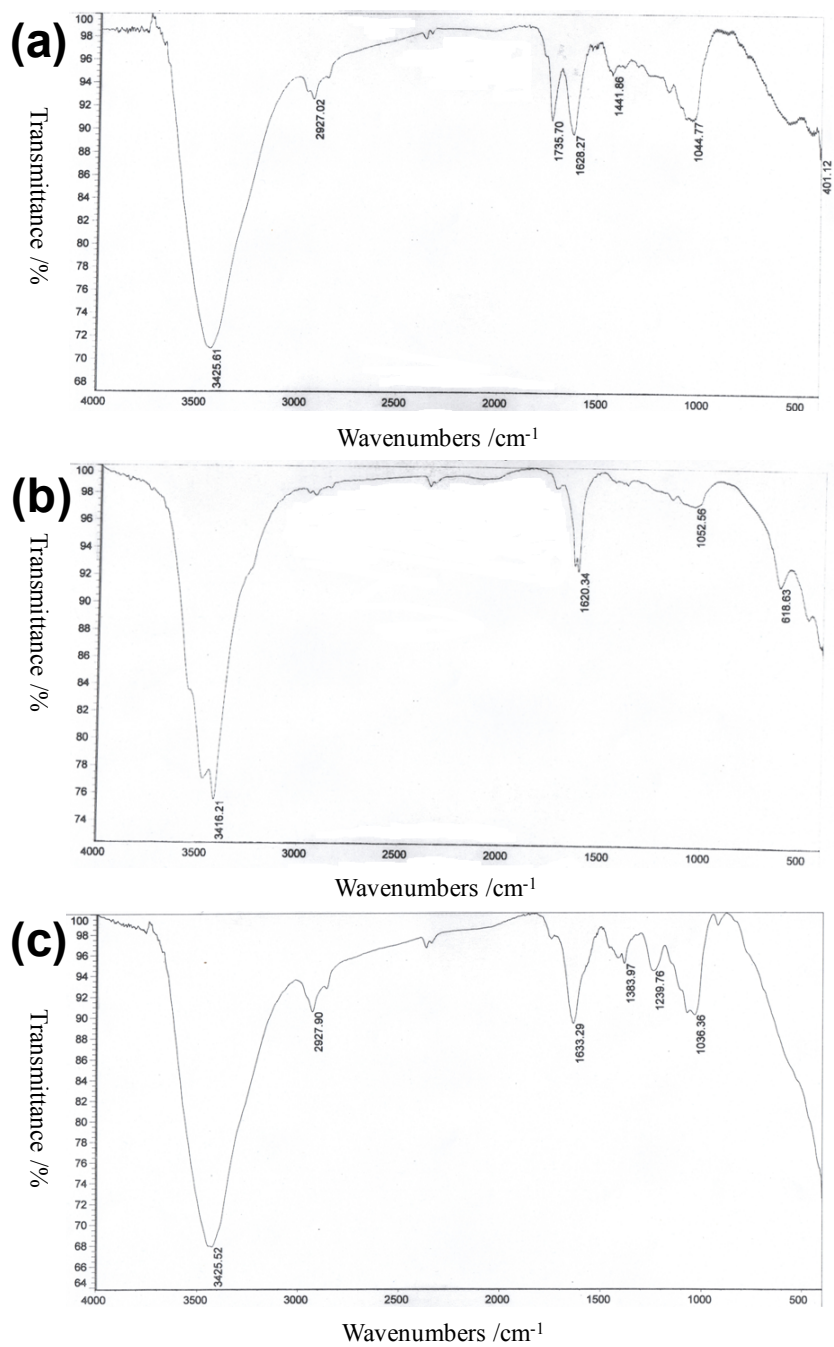


Fig. S8 FT-IR spectra of (a) the **GP1**, (b) the **GP2** and the **GP3**.

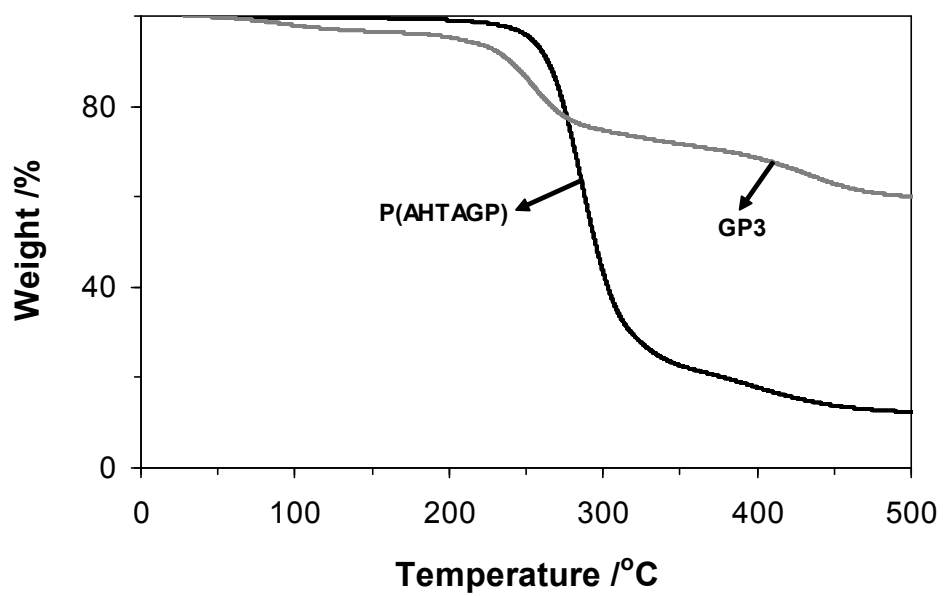


Fig. S9 TG curves of acetylated and deacetylated glycopolymers.

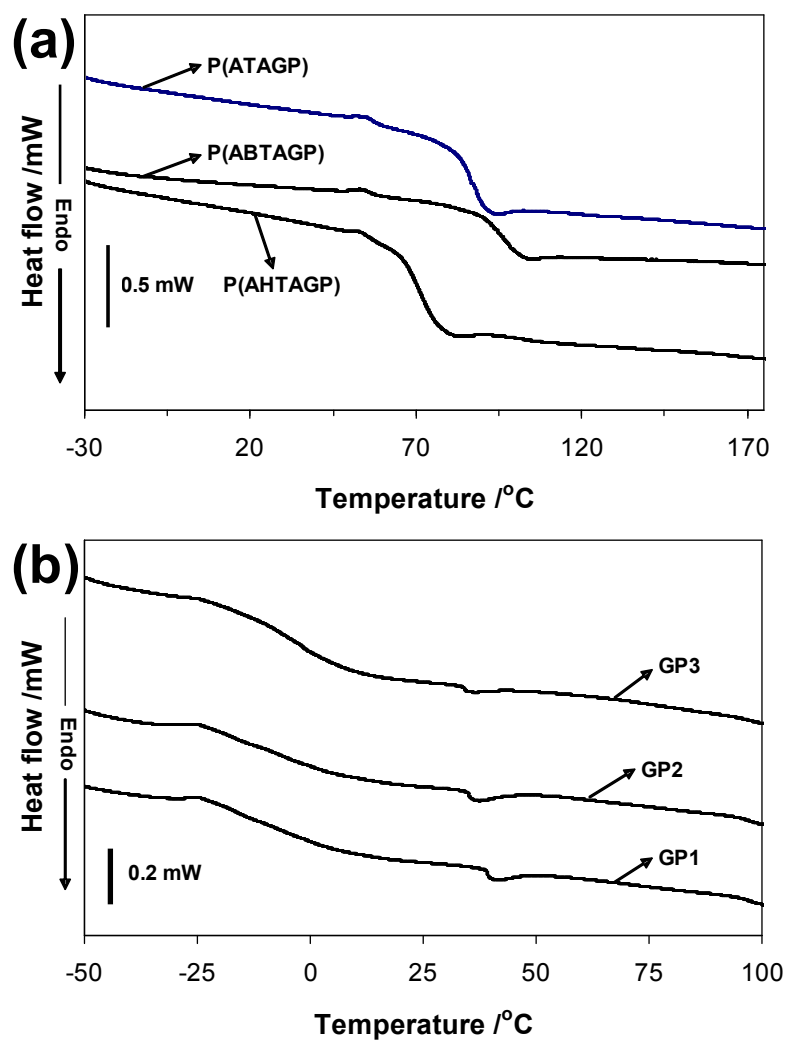


Fig. S10 DSC thermograms of (a) acetylated and (b) deacetylated glycopolymers on second heating under nitrogen atmosphere.

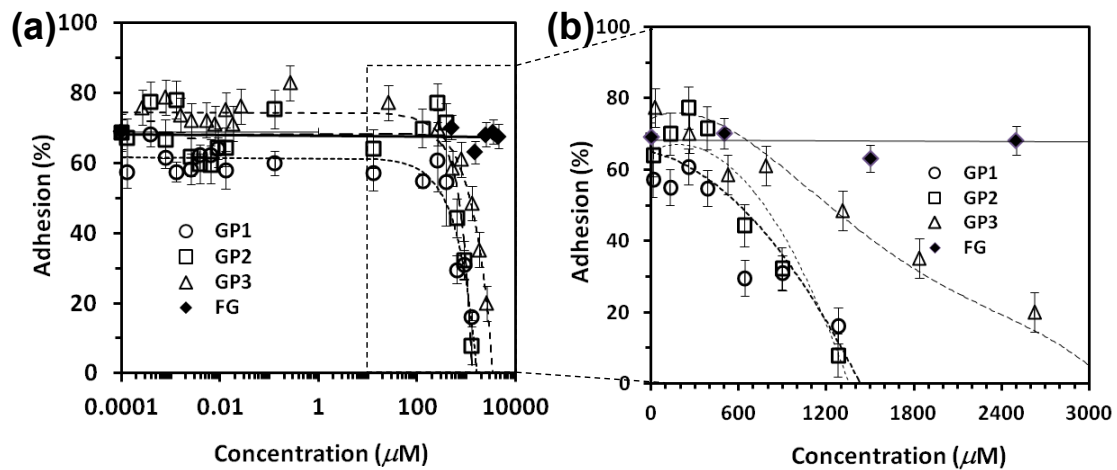


Fig. S11 Osteoblast cells adhesion after 4 h at various concentrations of glycopolymers and **FG**. Cell adhesion values plotted in (a) logarithmic scale which highlights relatively various low concentrations and (b) normal scan which highlights response at higher concentrations. In logarithmic scan the values at 0.0001 represents values of osteoblast cells response on tissue culture plastic surfaces as positive control condition. Clearly the **GP3** which has relatively lower packing density of covalently bonded glucose moiety showed relatively slow decrease in the osteoblast cells adhesion whereas the **GP1** and **GP2** had relatively higher glucose moiety packing densities.

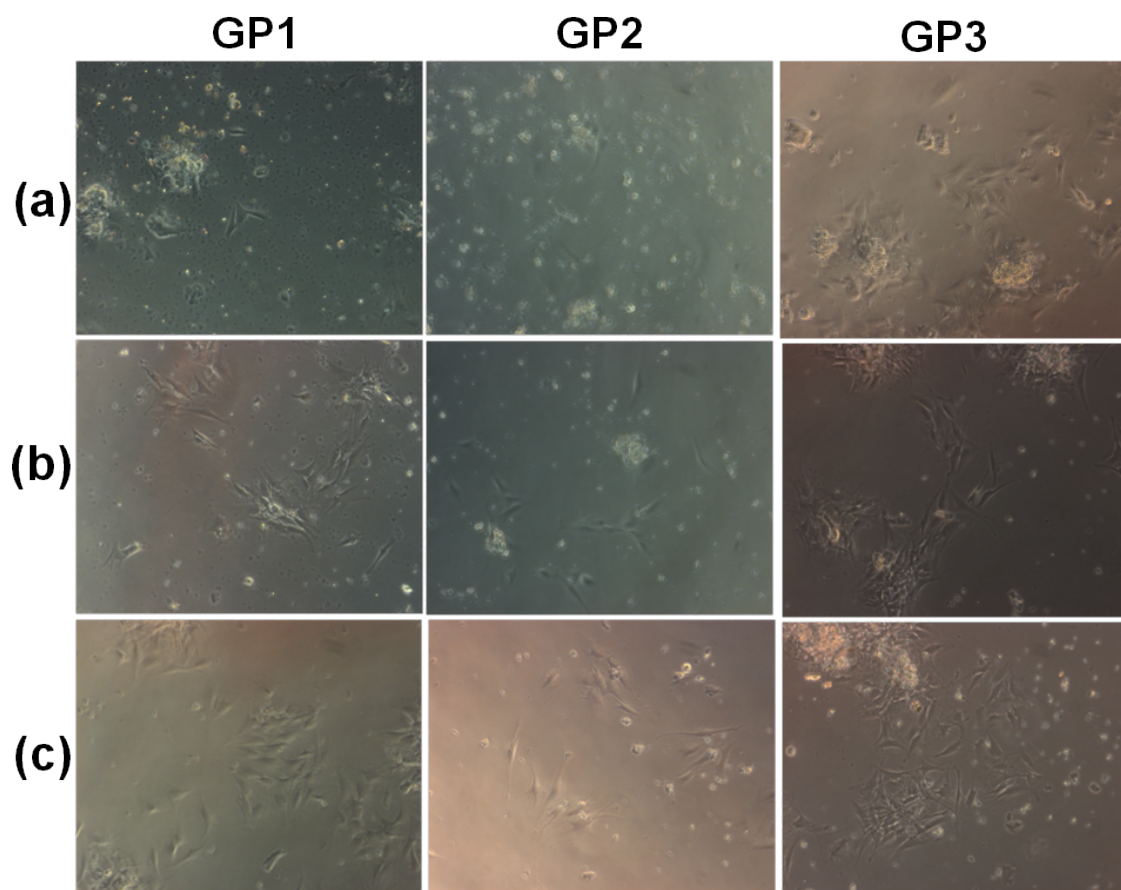


Fig. S12 Optical microscopy images of cells at (a) 100 μM , (b) 10 μM and (c) 1 μM concentrations of **GP1**, **GP2** and **GP3**.

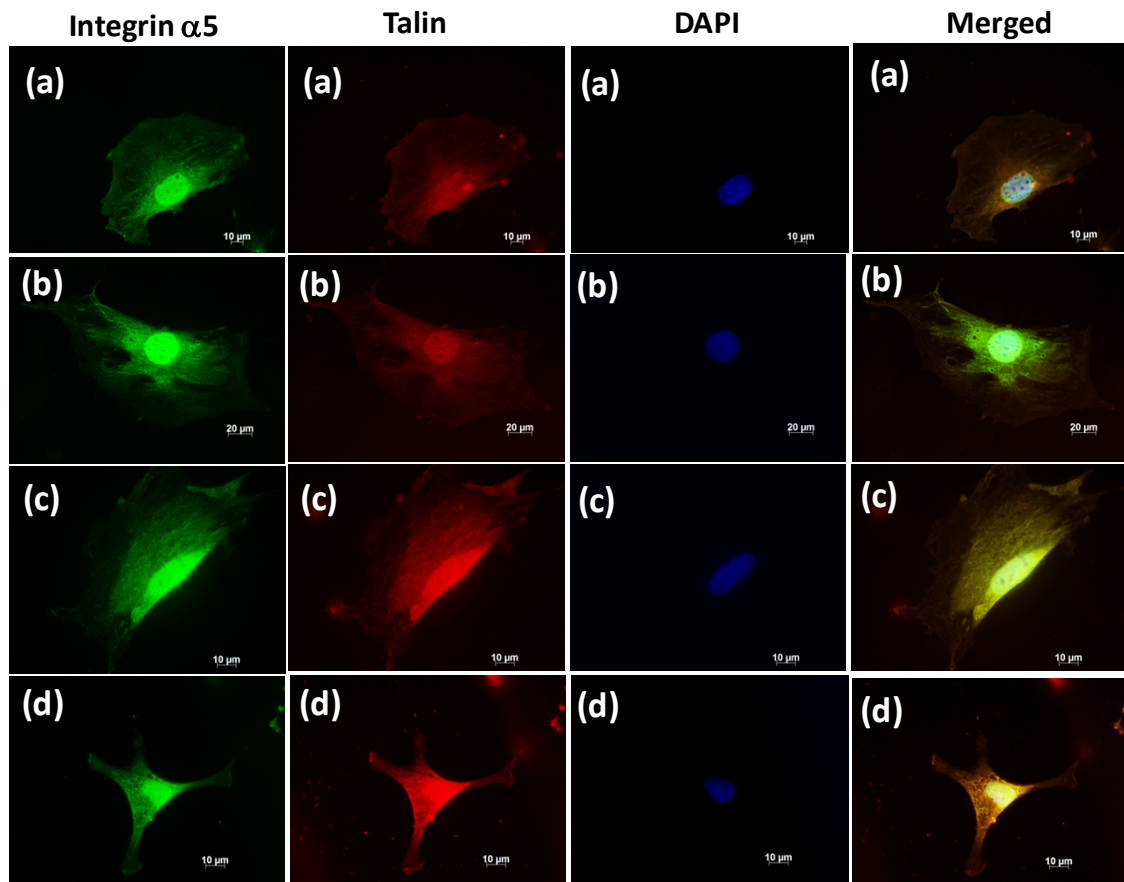


Fig. S13 Fluorescent microscopy images of co-stained, integrin $\alpha 5$, talin and DAPI, and merged for assessing the expression of cytoskeleton protein at (a) 100 nM, (b) 1 μ M, (c) 10 μ M and (d) 100 μ M concentrations of **GPI**.

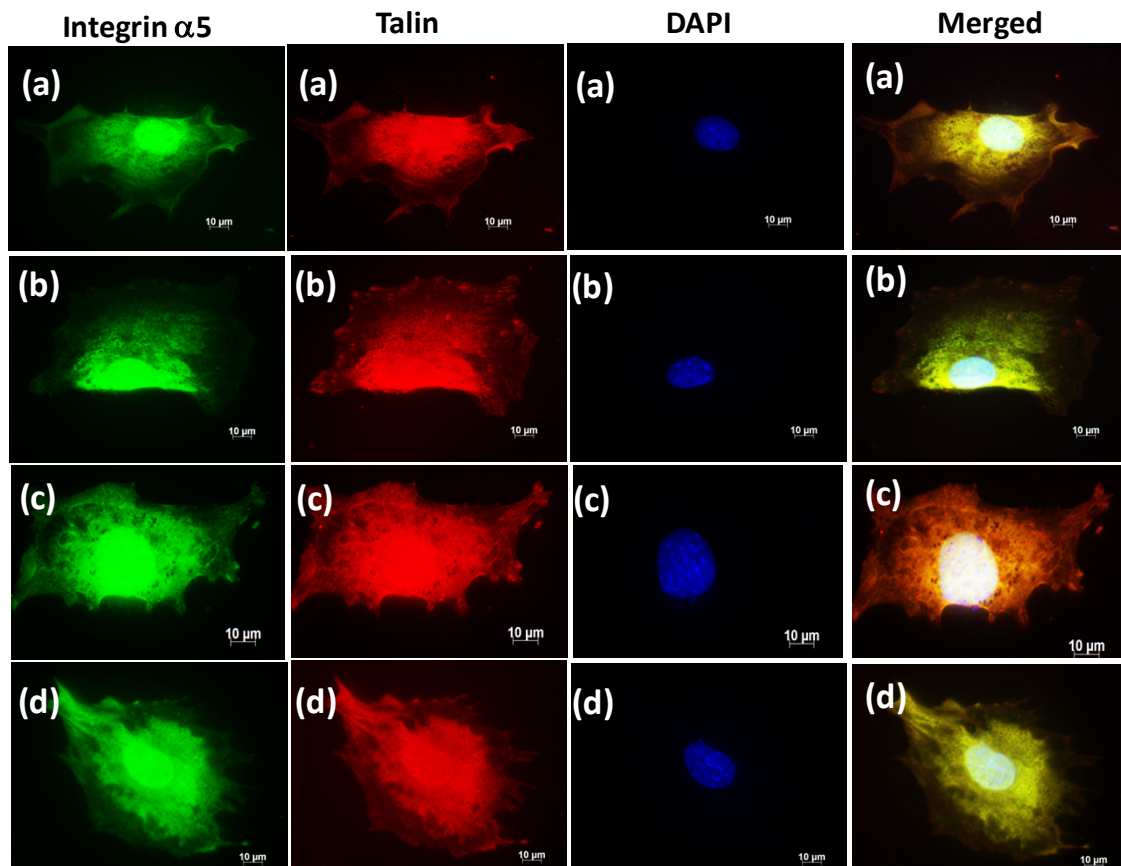


Fig. S14 Fluorescent microscopy images of co-stained, integrin $\alpha 5$, talin and DAPI, and merged for assessing the expression of cytoskeleton protein at (a) 100 nM, (b) 1 μM , (c) 10 μM and (d) 100 μM concentrations of **GP2**.

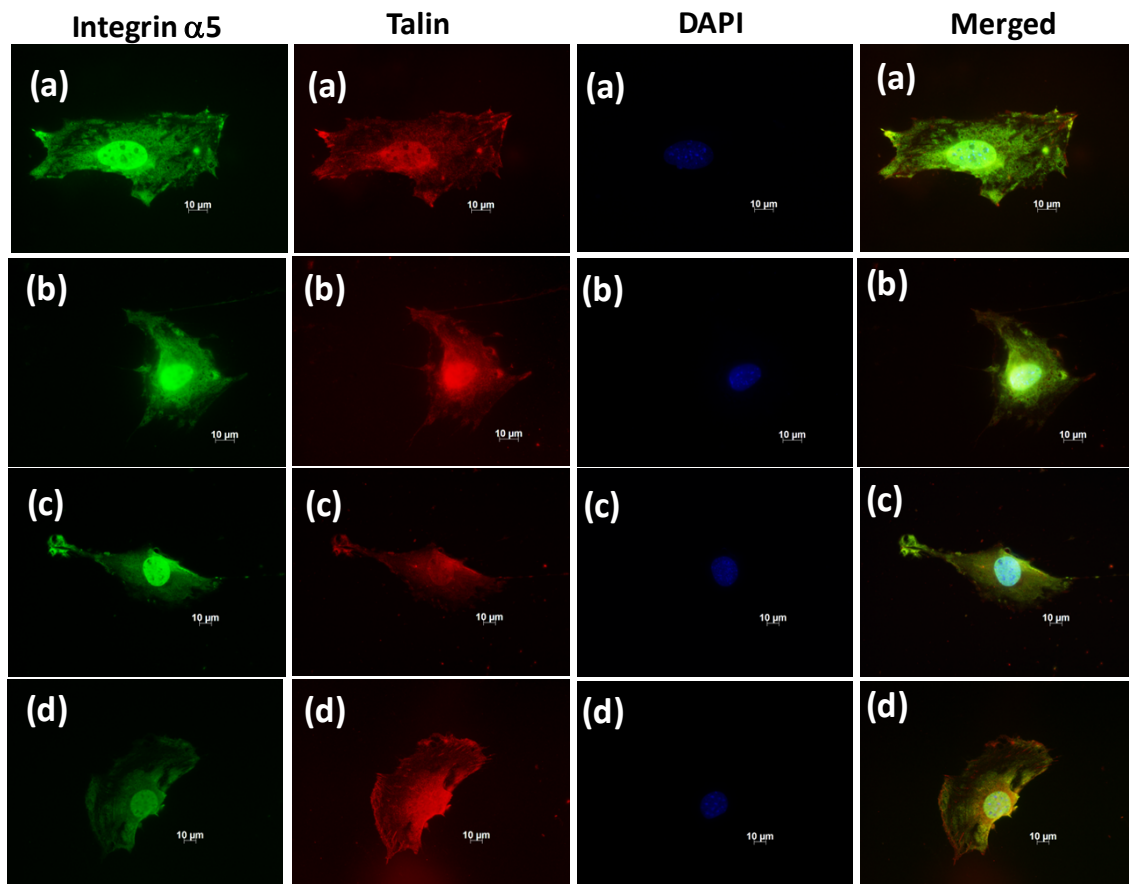


Fig. S15 Fluorescent microscopy images of co-stained, integrin $\alpha 5$, talin and DAPI, and merged for assessing the expression of cytoskeleton protein at (a) 100 nM, (b) 1 μ M, (c) 10 μ M and (d) 100 μ M concentrations of **GP3**.

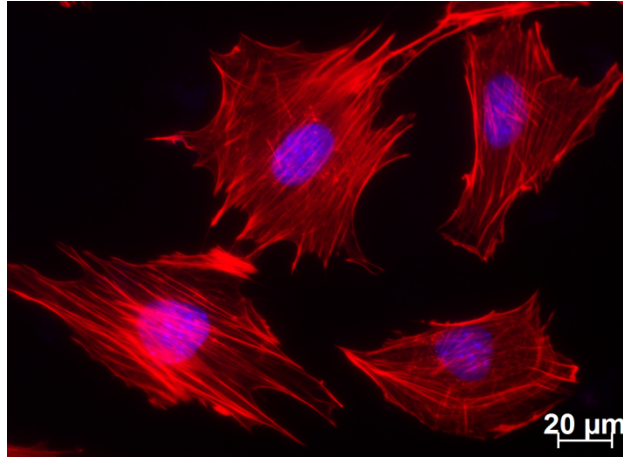


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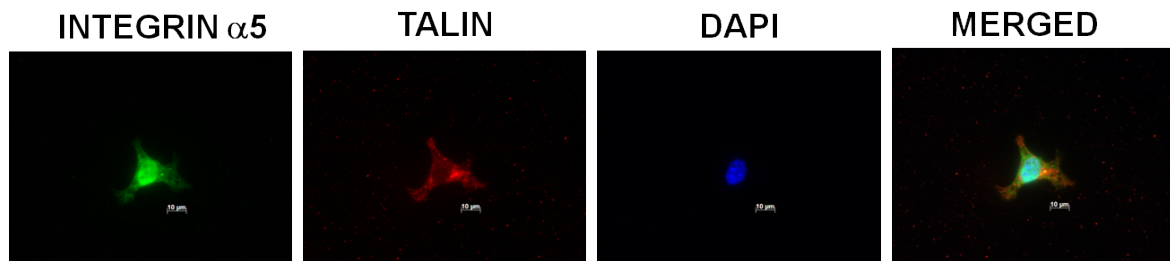


Fig. S17 Microscopic image of integrin $\alpha 5$ and talin staining for assessing the expression of cytoskeleton protein on tissue culture plastic surfaces for 1000 μ M of **GP3**.