Supplemental Information

Expression of the integrin $\alpha_v\beta_3$ receptor across primary and transformed cell lines

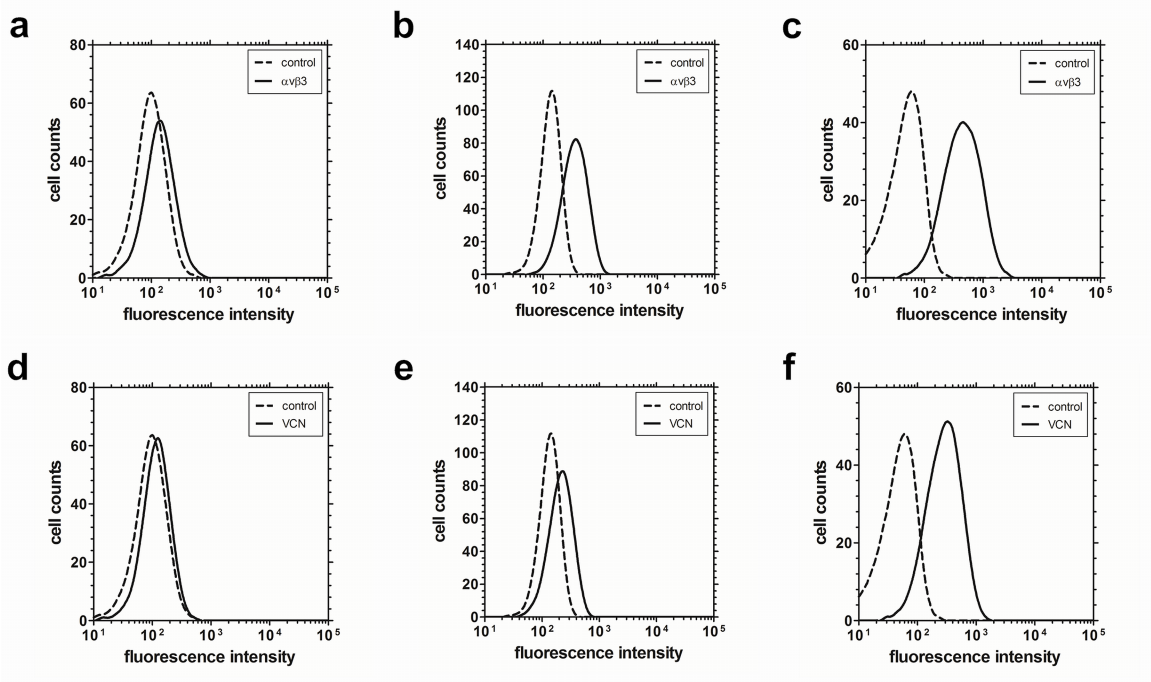

Figure S1: FACS analysis of $\alpha_v\beta_3$ expression levels and free VCN uptake across three cell lines. To evaluate the expression of $\alpha_v\beta_3$ integrins, flow cytometric analysis of MDA-MB-231, MDA-MB-435 and HUVEC (Fig. S1a-c) was carried out using an anti-α_v integrin antibody (LM609, Millipore, MA). The surface density of integrin receptors in each cell line were significantly different with the pattern of expression levels HUVEC>MDA-MB-435>MDA-MB-231. Binding to FITC-VCN was also assessed using the same cell lines (Fig. S1d-f). Relatively low binding of VCN to 231 and 435 cells were exhibited; however, an ~6-fold increase in signal from the control was observed for HUVEC cells.

Stability of A192-VCN nanoparticles

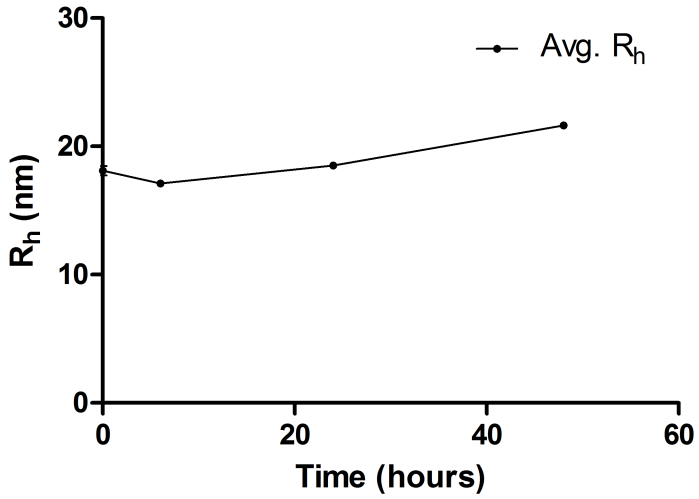

Figure S2: Stability of A192-VCN nanoconstructs over time. A192-VCN was incubated in PBS at 37 °C for 48 h. Samples were drawn at 6, 12, 24, and 48 h to observe changes, if any, in particle size over time. Results show a minimal change in particle size, with average R_h going from 18.1 nm at the start of incubation to 21.6 nm following 48 h. This suggests a stable population of nanoparticles in the A192-VCN solution.