

Supporting Information for:

**Targeting of Follicle Stimulating Hormone Peptide-conjugated Dendrimers
to Ovarian Cancer Cells**

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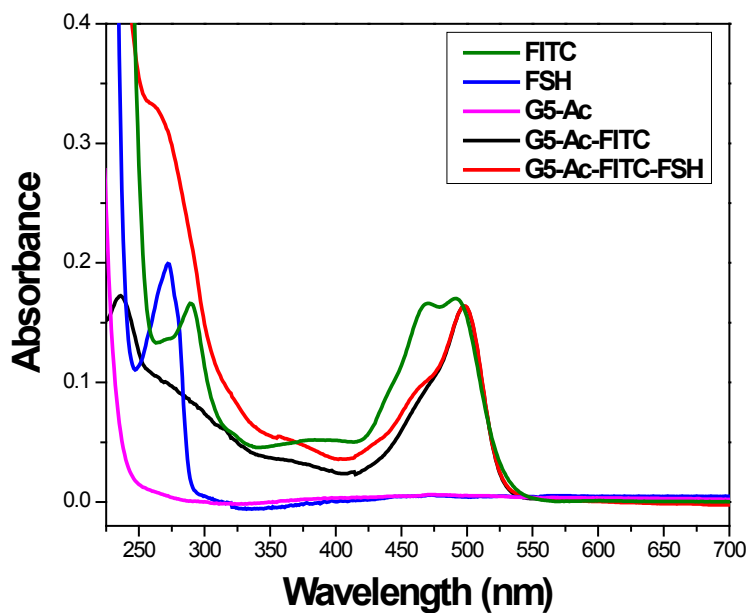


Fig. S1 UV/Vis spectra of G5-Ac-FITC and G5-Ac-FITC-FSH in ddH₂O. The number of FITC molecules was calculated based on a standard curve of FITC at 499 nm and was estimated to be 5.5 molecules/dendrimer. The number of FSH33 molecules was similarly calculated at 273 nm and was estimated to be 10.3 molecules/dendrimer.

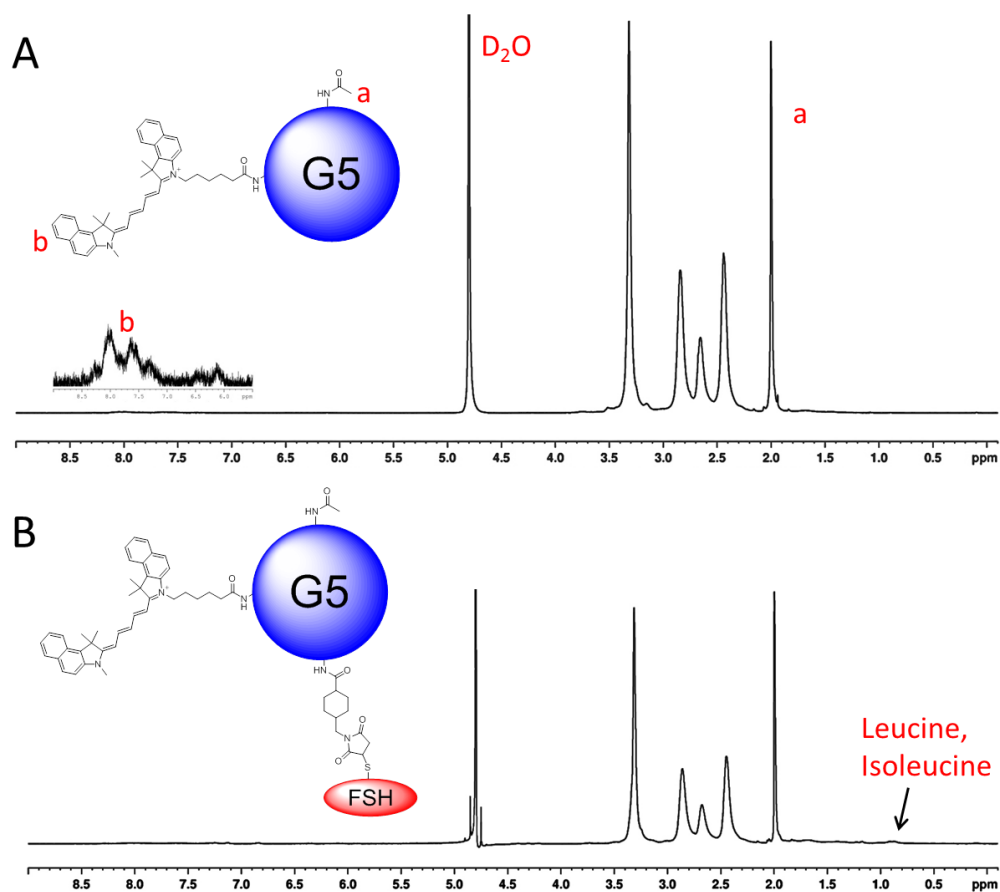


Fig. S2 ^1H NMR spectra of (A) G5-Ac-Cy5.5 and (B) G5-Ac-Cy5.5-FSH in D_2O . The ^1H NMR spectrum of G5 PAMAM dendrimers has characteristic peaks corresponding to the protons of the internal methylene groups and those adjacent to the surface amino groups appearing between 2.45–3.40 ppm. Partial acetylation of G5 PAMAM resulted in the appearance of a new peak at 1.95 ppm, corresponding to the acetamide protons. Subsequent Cy5.5 conjugation was confirmed by the peaks appearing between 7.00–8.50 ppm corresponding to the aromatic protons on the probe (A). FSH33 conjugation was confirmed by the appearance of peaks corresponding to the leucine and isoleucine protons at 0.95 ppm (B). The integration ratio of the acetamide proton peaks to those of the dendrimer confirmed successful end capping of the primary amine groups of G5-Ac-Cy5.5 and G5-Ac-Cy5.5-FSH. The number of Cy5.5 and FSH33 molecules attached was estimated based on the integration ratio of peak b (for Cy5.5) and the

leucine/isoleucine proton peak (for FSH33) to the dendrimer peaks, which was revealed to be 2.1
Cy5.5 and 2.3 FSH33 molecules per dendrimer.

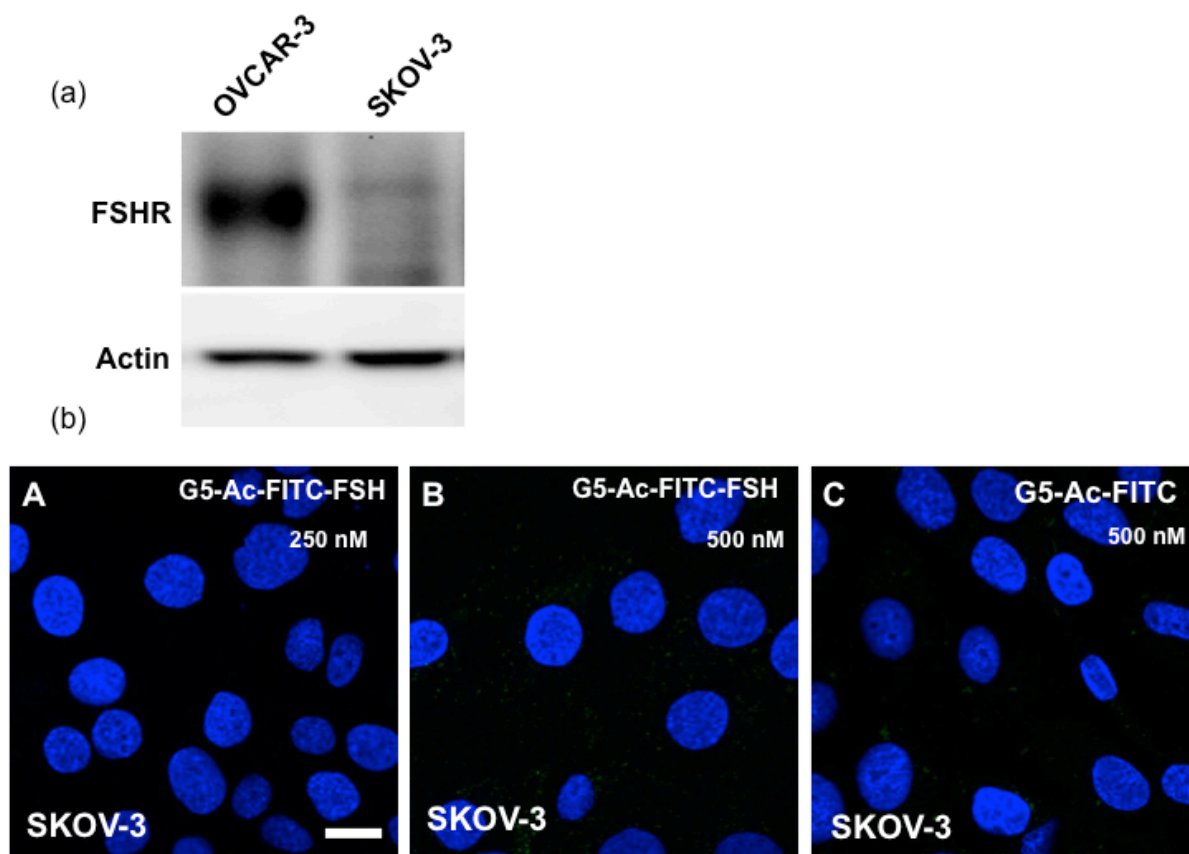


Fig. S3 (a) Expression of FSHR protein in human ovarian cancer cell lines; OVCAR-3 and SKOV-3 by western blot. Size of FSHR is ~78 kDa. (b) Uptake of G5-Ac-FITC-FSH (A. 250 nM and B. 500 nM) and C. 500 nM G5-Ac-FITC in SKOV-3 cells (FSHR⁻) after 5 h incubation, showing minimal cellular interaction compared to OVCAR-3 cells (Figure 3a). Blue: cell nuclei stained by DAPI, green: FITC-labeled dendrimers, scale bar: 20 μm.

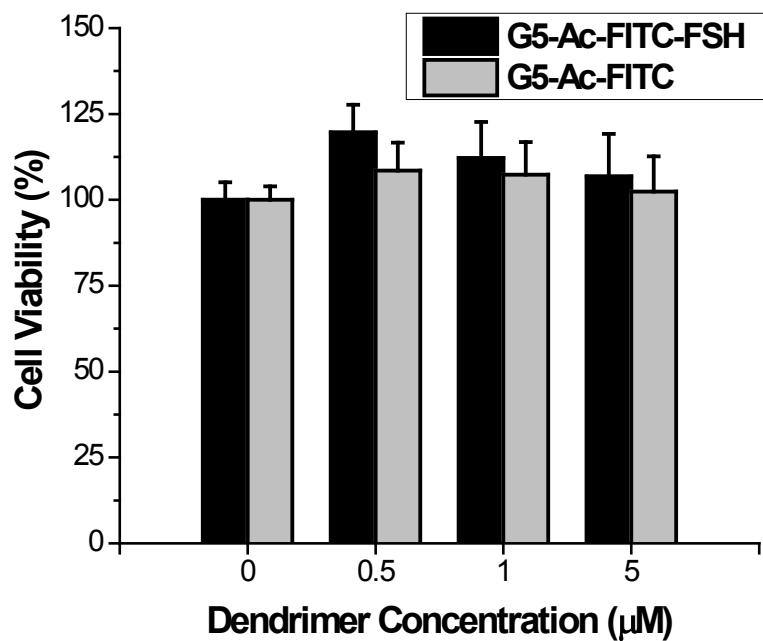


Fig. S4 Cytotoxicity of the dendrimer conjugates prepared in this study in OVCAR-3 cells after 24 h incubation. The conjugates were well tolerated and did not show any cytotoxicity up to micromolar concentrations.